



## Final Regulation Agency Background Document

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| <b>Approving authority name</b>  | State Air Pollution Control Board                          |
| <b>Primary action</b>            | Article 8, 9 VAC 5-80                                      |
| <b>Secondary action(s)</b>       | Article 4, 9 VAC 5-50; Articles 6 and 9, 9 VAC 5-80        |
| <b>Regulation title</b>          | Regulations for the Control and Abatement of Air Pollution |
| <b>Action title</b>              | Major New Source Review Reform (Revision E03)              |
| <b>Document preparation date</b> | June 27, 2006  |

This information is required for executive review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act, Executive Orders 21 (2002) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

### Brief Summary

*Please provide a brief summary of the proposed new regulation, proposed amendments to the existing regulation, or the regulation proposed to be repealed. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation. Also alert the reader to changes made to the regulation since publication of the proposed.*

Article 8 establishes a new source review (NSR) permit program whereby owners of sources locating in prevention of significant deterioration (PSD) areas are required to obtain a permit prior to construction of a new facility or modification (physical change or change in the method of operation) of an existing one. Article 9 establishes an NSR permit program whereby owners of sources locating in nonattainment areas are required to obtain a permit prior to construction of a new facility or modification of an existing one.

Articles 8 and 9 apply to the construction or reconstruction of new major stationary sources or major modifications to existing ones. The owner must obtain a permit from the board prior to the construction or modification of the source. The owner of the proposed new or modified source must provide information as may be needed to enable the board to conduct a preconstruction review in order to determine compliance with applicable control technology and other standards, and to assess the impact of the emissions from the facility on air quality. The regulation also provides the basis for the board's final action (approval or disapproval) on the permit depending on the results of the preconstruction review.

Article 8 requires a facility to use the best available control technology (BACT) to control emissions from the proposed facility, and requires a facility to control emissions from the proposed facility such that the air quality standards or increments are not violated. Article 9 requires a facility to use the lowest achievable emission rate (LAER) as the limit to control emissions from the proposed facility, and requires

the facility to obtain emission reductions from existing sources to offset the proposed project's emissions increases.

EPA's new major NSR reform rule originally incorporated five main elements: (i) changes to the method for determining baseline actual emissions; (ii) changes to the method for determining emissions increases due to operational change; (iii) provisions to exclude pollution control projects (PCPs) from NSR; (iv) provisions for determining applicability of NSR requirements for units designated as Clean Units; and (v) provisions to allow for compliance with plantwide applicability limits (PALs). The current state NSR regulations have been amended in order to meet these new requirements except for the Clean Unit and PCP provisions, which have been vacated by a federal court and can no longer be legally implemented. The minor NSR regulation (Article 6) has also been revised to remove provisions for PCPs.

In addition, Article 8 has been revised in order to be consistent with other NSR regulations. This consists of (i) removing federal enforceability of certain provisions that should be enforceable by the state (toxics and odor) in order to prevent state-only terms and conditions from being designated as federally enforceable in a permit; (ii) deleting provisions covered elsewhere regarding circumvention, and reactivation and permanent shutdown; and (iii) adding provisions regarding changes to permits, administrative permit amendments, minor permit amendments, significant amendment procedures, and reopening for cause. Finally, Article 4 of 9 VAC 5 Chapter 50, which contains general requirements for new and modified stationary sources, has been revised to be consistent with the control technology provisions of Articles 8 and 9.

In 21:22 VA.R. 3003-3083 July 11, 2005, the board published for public comment a proposal to amend Articles 8 and 9 in order to implement EPA's rules. In response to that request, comments were submitted that resulted in several changes be made to the original proposal. On December 8, 2005, the board adopted final amendments to its regulations concerning major new source review reform, with an effective date of February 22, 2006. The final regulation amendments as adopted were published in the Virginia Register in 22:10 VA.R. 1562-1637 January 23, 2006. Pursuant to § 2.2-4007 K of the Code of Virginia, at least 25 persons requested an opportunity to submit oral and written comments on the changes to the proposed regulation. Because of the substantive nature of these additional changes and the requests from petitioners, the board reopened the proposal for public comment on those changes to the final regulation and suspended the effective date of the final regulation.

The petitions submitted under §2.2-4007 K identified the following as the change that will have a substantial impact and is of concern: The proposed regulations excluded emission increases that could be accommodated and are unrelated to the project, including demand growth, from projected actual emissions. This exclusion was removed from the final.

On June 21, 2006, the Virginia State Air Pollution Control Board reconsidered its original December 8, 2005 decision on the major NSR reform final regulation. In its reconsideration decision, the board reinstated the accommodation exclusion; but in doing so, made changes to clarify the intent of the provision and ensure consistency in its application. Since December, 2005, changes have been made to 9 VAC 5-80-1605 G 6, 9 VAC 5-80-1615 C (definition of "projected actual emissions"), 9 VAC 5-80-1785 B 1 c (definition of "projected actual emissions"), 9 VAC 5-80-2000 G 6 and 9 VAC 5-80-2091 B 1 c.

**Statement of Final Agency Action**

*Please provide a statement of the final action taken by the agency including (1) the date the action was taken, (2) the name of the agency taking the action, and (3) the title of the regulation.*

On December 8, 2005, the State Air Pollution Control Board adopted final amendments to regulations entitled "Regulations for the Control and Abatement of Air Pollution," specifically, new source review reform (9 VAC Chapter 50, Article 4; 9 VAC 5 Chapter 80, Articles 6, 8, and 9). The regulation amendments were to be effective on February 8, 2006. This effective date was suspended on March 6, 2006.

On June 21, 2006, the State Air Pollution Control Board adopted new final amendments to regulations entitled "Regulations for the Control and Abatement of Air Pollution," specifically, new source review reform (9 VAC Chapter 50, Article 4; 9 VAC 5 Chapter 80, Articles 6, 8, and 9). The regulation amendments are to be effective on September 1, 2006.

**Legal Basis**

*Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation adopted. Please state that the Office of the Attorney General has certified that the agency has the statutory authority to adopt the regulation.*

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare. Written assurance from the Office of the Attorney General that the State Air Pollution Control Board possesses the statutory authority to promulgate the proposed regulation amendments is available upon request.

**Purpose**

*Please provide a statement explaining the rationale or justification of the proposal as it relates to the health, safety or welfare of citizens.*

The purpose of the regulations is to (i) protect public health and welfare by enabling the department to determine whether a new or modified source will affect ambient air quality standards and PSD ambient air increments; (ii) require the owner of a proposed new or modified facility to provide such information as may be needed to enable the board to conduct a preconstruction review in order to determine compliance with applicable control technology and other standards and to assess the impact of the emissions from the facility on air quality and (iii) to provide the basis for the board's final action (approval or disapproval) on the permit depending upon the results of the preconstruction review. The proposed amendments are being made in order to provide the regulatory authority to implement the federal new source reform requirements of 40 CFR Part 51.

**Substance**

*Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. A more detailed discussion is required under the "All Changes Made in this Regulatory Action" section.*

The following amendments apply to Articles 8 (PSD areas) and 9 (nonattainment areas):

1. Provisions for electric utility steam generating units (EUSGUs) have been added in order for the baseline state regulations to be consistent with the baseline federal regulations.
2. Requirements for determining whether physical changes made to existing emissions units trigger major NSR requirements have been revised. Sources establishing their baseline actual emissions may now use any consecutive 24-month period during the five-year period prior to the change to determine the baseline actual emissions. Additionally, non-EGU sources may use a different time period in determining baseline actual emissions if a case can be made that the proposed alternative time period is more representative of normal source operation.
3. The method for determining if a physical or operational change will result in an emissions increase has been revised. The previous "actual-to-potential" and "actual-to-representative-actual-annual" emissions applicability tests for existing emissions units have been replaced with an "actual-to-projected-actual" applicability test.
4. Provisions for plantwide applicability limits (PALs) have been added. A PAL is a voluntary option that allows a source to manage emissions without triggering major new source review. The PAL program is based on plantwide actual emissions. If the emissions are maintained below a plantwide actual emissions cap, then the facility may avoid major NSR permitting process when it makes alterations to the facility or individual emissions units.

The following amendments are limited to specific articles:

5. Article 8 has been revised in order to be consistent with other NSR regulations. This consists of (i) removing federal enforceability of certain provisions that should be enforceable by the state (toxics and odor) in order to prevent state-only terms and conditions from being designated as federally enforceable in a permit; (ii) deleting provisions covered elsewhere regarding circumvention, and reactivation and permanent shutdown; and (iii) adding provisions regarding changes to permits, administrative permit amendments, minor permit amendments, significant amendment procedures, and reopening for cause.
6. Article 6 (the minor NSR regulation) has been revised to remove provisions for PCPs that will be covered by the changes to the major NSR regulations.
7. Article 4 of 9 VAC 5 Chapter 50, which contains general requirements for new and modified stationary sources, has been revised to be consistent with the control technology provisions of Articles 8 and 9.

**Issues**

*Please identify the issues associated with the proposed regulatory action, including: (1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; (2) the primary advantages and disadvantages to the agency or the Commonwealth; and (3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please indicate.*

1. Public: Advantages to the regulated community include more certainty, as various long-standing EPA policies are now codified into the regulations, and more specifics as to what is and is not subject to major

source NSR have been added. Added flexibility in business planning will be realized, as new projects that either have a positive or no negative impact on the environment can be implemented without undergoing costly and time-consuming NSR permitting. The general public will benefit from a reduction in the health and welfare effects of air pollution, as the new rules encourage the application of air pollution control equipment and work practices. While there is a slight immediate disadvantage to the public in that changes to a source may no longer be scrutinized through the traditional approach of a permitting analysis for every facility change, this disadvantage will be outweighed over time as focus will be shifted to activities with more significant impacts to the environment. This slight disadvantage will also be outweighed by the additional recordkeeping that sources will have to conduct in order to justify projects that are exempt from major source NSR.

2. Department: The department will benefit by diverting its limited resources to projects with a potentially significant impact to the environment rather than on projects with positive or neutral effects to the environment. Permitting resources will be diverted to projects with more of an impact on the environment. There may be a slight initial disadvantage to compliance and enforcement staff in that additional, closer scrutiny will be required of facility inspections and review; however, this will be outweighed over time as the system eliminates attention to less important programs and diverts it to areas that genuinely require greater scrutiny. The department will also benefit from the availability of additional recordkeeping that sources will have to conduct in order to justify projects that are exempt from major source NSR.

**Changes Made Since the Proposed Stage**

*Please describe all changes made to the text of the proposed regulation since the publication of the proposed stage. For the Registrar’s office, please put an asterisk next to any substantive changes.*

| Section number                         | Requirement at proposed stage  | What has changed | Rationale for change   |
|--|--|------------------|--|
| <b>Article 6 of 9 VAC 5 Chapter 80</b> |  |                  |  |
| 1110 C                                 | Definitions of “applicable federal requirement” and “secondary emissions.”   | Revised.         | Clarifications.  |
| <b>Article 8 of 9 VAC 5 Chapter 80</b> |  |                  |  |
| 1605 D                                 | Applicability.   | Revised.         | Clarification.   |
| *1605 E                                | Applicability.   | Deleted.         | Board action.  |
| 1605 E through L                       | General requirements.  | Revised.         | Renumbering to reflect deletions, corrections, clarifications. |
| *1605 F                                | Applicability.   | Revised.         | Board action.  |
| *1605 H 5                              | Clean Unit requirements.   | Deleted.         | Vacated by court.  |
| *1605 J                                | PCP requirements   | Deleted.         | Vacated by court.  |
| 1615 C                                 | Definitions of “applicable federal requirement,” “major emissions unit,” subdivision a (1) of “net emissions increase,” “potential to emit.” | Revised.         | Clarifications and corrections.                                |
| *1615 C                                | Definition of “baseline actual emissions,” subdivision b.  | Revised.         | Board action.  |

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| 1615 C          | Definition of "net emissions increase," subdivision c                                      | Increase or decrease in actual emissions is creditable only if the board has not relied on it in issuing a permit under this chapter. | Correction.                             |
| *1615 C         | Definition of "projected actual emissions," subdivision c.                                 | Revised.  | Board action.                           |
| *1615 C         | Definitions of "Clean Unit," "pollution control project," and "pollution prevention."      | Deleted.  | Vacated by court.                       |
| *1615 C         | Definition of "effective date of this revision."   | Deleted.  | Board action.                           |
| *1615 C         | Definition of "major modification," subdivision c (8), (9), and (10); PCP requirements.    | Subdivision c (8) deleted; (9) and (10) renumbered.   | Vacated by court.                       |
| *1615 C         | Definition of "net emissions increase," subdivisions c and f (4), Clean Unit requirements. | Deleted.  | Vacated by court.                       |
| 1615 C          | Definition of "significant," subdivision a, emissions rate for PM <sub>2.5</sub> .         | Revised.  | EPA proposed rule.                      |
| 1625 E and F    | Combining of permits.  | Revised.  | Clarifications and corrections.         |
| 1695 A 2 c; C 1 | Emissions effect on Class I areas.   | Revised.  | Corrections.                            |
| 1735            | Air quality analysis.  | Revised.  | Corrections.                            |
| 1765            | Sources affecting federal class I areas.   | Revised.  | Corrections.                            |
| *1785 B         | Source obligation.   | Revised to remove clean unit provision.   | Vacated by court; numbering correction. |
| 1785 E          | Significant emissions notification.  | Revised.  | Clarification.                          |
| 1825 B 4 b      | Affect on increment.   | Revised.  | Correction.                             |
| *1835           | Clean Unit test for units subject to BACT or LAER  | Deleted.  | Vacated by court.                       |
| *1845           | Clean Unit test for units comparable to BACT.  | Deleted.  | Vacated by court.                       |
| *1855           | PCP requirements.  | Deleted.  | Vacated by court.                       |
| 1865 D and J 2  | PAL requirements.  | Revised.  | Clarifications.                         |
| *1865 P         | PAL requirements.  | Revised.  | Board action.                           |
| 1925 A and B    | Changes to permits.  | Revised.  | Corrections and clarifications.         |
| 1935 A 4        | Combining of permits.  | Deleted.  | Correction.                             |
| 1945 A, B, C    | Minor permit amendments.   | Revised.  | Corrections and clarifications.         |
| 1955 A          | Significant amendment procedures.  | Revised.  | Corrections and clarifications.         |
| 1965 A 4        | Reopening for cause.   | Deleted.  | Correction.                             |

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| 1985 A and B                           | Permit invalidation.   | Revised.  | Federal program consistency.                                   |
| <b>Article 9 of 9 VAC 5 Chapter 80</b> |  |   |  |
| 2000 E                                 | Applicability.   | Revised.  | Corrections and clarifications.                                |
| *2000 F                                | Applicability.   | Deleted.  | Board action.  |
| 2000 E through M                       | Applicability.   | Revised.  | Renumbering to reflect deletions, corrections, clarifications. |
| *2000 F                                | Applicability.   | Revised.  | Board action.  |
| *2000 I 5                              | Clean Unit requirements.   | Deleted.  | Vacated by court.  |
| *2000 K                                | PCP requirements.  | Deleted.  | Vacated by court.  |
| *2010 C                                | Definitions of "Clean Unit," "pollution control project," and "pollution prevention."  | Deleted.  | Vacated by court.  |
| 2010 C                                 | Definitions of "applicable federal requirement," "major emissions unit," "potential to emit," and "regulated NSR pollutant." | Revised.  | Corrections and clarifications.                                |
| *2010 C                                | Definition of "baseline actual emissions," subdivision b.  | Revised.  | Board action.  |
| *2010 C                                | Definition of "major modification," subdivision c (8), PCP requirements.   | Deleted.  | Vacated by court.  |
| *2010 C                                | Definition of "net emissions increase," subdivisions c (3) and e (5), Clean Unit requirements.                               | Deleted; renumbering throughout remainder.  | Vacated by court.  |
| 2010 C                                 | Definition of "net emissions increase," subdivision c.   | Increase or decrease in actual emissions is creditable only if the board has not relied on it in issuing a permit under this chapter. | Revised: correction.   |
| *2010 C                                | Definition of "projected actual emissions," subdivision c.   | Revised.  | Board action.  |
| 2010 C                                 | Definition of "significant," subdivision b, significance levels for PM <sub>10</sub> and PM <sub>2.5</sub> .                 | Added.  | EPA proposed rule.   |
| 2020 C                                 | Source relocation.   | Deleted.  | Correction.  |
| 2020 C-F                               | General requirements.  | Revised.  | Renumbering, corrections, clarifications.                      |
| 2050 B                                 | Emissions caps.  | Deleted.  | Redundant.   |
| 2050 B and C                           | Permit requirements.   | Revised.  | Renumbering.   |
| *2091 B                                | Clean Unit requirement.  | Deleted.  | Vacated by court.  |
| 2091                                   | Significant emissions notification.  | Revised.  | Clarification.   |
| 2120 J                                 | Appendix S   | Revised.  | Correction.  |
| *2120 L and M; N                       | Clean Unit and PCP requirements.   | Deleted; renumbered accordingly.  | Vacated by court.  |

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| 2130           | De minimis increases and modifications.           | Revised. | Corrections.                    |
| *2141          | Clean Unit test for units subject to BACT or LAER | Deleted. | Vacated by court.               |
| *2142          | Clean Unit test for units comparable to BACT.     | Deleted. | Vacated by court.               |
| *2143          | PCP requirements.                                 | Deleted. | Vacated by court.               |
| 2144 D and J 2 | PAL requirements.                                 | Revised. | Clarifications.                 |
| *2144 P        | PAL requirements.                                 | Revised. | Board action.                   |
| 2180 A         | Permit invalidation.                              | Revised. | Federal program consistency.    |
| 2200 A and B   | Changes to permits.                               | Revised. | Corrections and clarifications. |
| 2210 A 4       | Combining of permits.                             | Deleted  | Correction.                     |
| 2220 A, B, C   | Minor permit amendments.                          | Revised. | Corrections and clarifications. |
| 2230 A         | Significant amendment procedures.                 | Revised. | Corrections and clarifications. |
| 2240 A         | Reopening for cause.                              | Revised. | Corrections and clarifications. |

**Public Comment**

*Please summarize all public comment received during the public comment period following the publication of the proposed stage, and provide the agency response. If no public comment was received, please so indicate.*

A summary and analysis of the public testimony, along with the basis for the decision of the board, is attached.

**All Changes Made in this Regulatory Action**

*Please detail all changes that are being proposed and the consequences of the proposed changes. Detail new provisions and/or all changes to existing sections.*

| Current section number   | Proposed new section number, if applicable | Current requirement   | Proposed change and rationale |
|--|--|---|-------------------------------|
| Article 4 of 9 VAC 5 Chapter 50  |  |   |                               |
| 270 B and C  |  | Control technology requirements for achieving the lowest achievable emissions rate. | Revised. Federal requirement. |
| 280 B and C  |  | Control technology requirements for achieving best available control technology.    | Revised. Federal requirement. |
| Article 6 of 9 VAC 5 Chapter 80 – <b>SEE ALSO “CHANGES MADE SINCE PROPOSED STAGE.”</b> |  |   |                               |

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| 1100 G  |                  | Exemption exception.                       | Removed. Consistency with removal of 80-1310.   |
| 1110 C, Terms defined.  |                  | See below.                                 | See below.                                      |
| applicable federal requirement, major NSR program, minor NSR program  |                  | Terms defined.                             | Revised. Correction.                            |
| emissions cap   |                  | Terms defined.                             | Revised. Consistency with state permit program. |
| pollution control projects, targeted regulated air pollutants   |                  | Terms defined.                             | Definitions removed. Federal requirement.       |
| 1310  |                  | Pollution control projects.                | Repealed. Federal requirement.                  |
| Article 8 of 9 VAC 5 Chapter 80 - <b>SEE ALSO "CHANGES MADE SINCE PROPOSED STAGE."</b>  |                  |  |   |
| 1700 A  | 1605 A           | Applicability.                             | Revised. Federal requirement.                   |
| 1700 C  | 1605 C           | Applicability.                             | Revised. Federal requirement.                   |
| 1700 D  | 1605 D           | Applicability.                             | Revised. State requirement.                     |
| 1700 E  | 1605 E           | Applicability.                             | Revised. Federal requirement                    |
| 1700 F  | 1605 F           | Applicability.                             | Revised. Renumbering.                           |
| 1700 G  | 1605 G           | Circumvention.                             | Relocated from 1960, state requirement.         |
|   | 1605 H through J | Applicability.                             | Added, federal requirement.                     |
|   | 1605 K, L        | Applicability.                             | Added. State requirements.                      |
| 1710 B  | 1615 B           | Application of definitions to the article. | Revised. State requirements.                    |
| 1710 C, Terms defined.  | 1615 C           | See below.                                 | See below.                                      |
| baseline concentration, BACT, complete, construction, emissions unit, federally enforceable, major modification, major stationary source, necessary preconstruction approvals or permits, secondary emissions, significant, stationary source |                  | Terms defined.                             | Revised. State and federal requirements.        |

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| <p>effective date of this revision, EUSGU, enforceable as a practical matter, federal operating permit, federal operating permit program, LAER, major NSR permit, major NSR permit program, minor NSR permit, minor NSR permit program, NSR permit, NSR permit program, project, regulated NSR pollutant, state operating permit, state operating permit program</p> |  | <p>Terms defined.</p> | <p>Added. State and federal requirements.</p> |
| <p>actual emissions, clean coal technology, clean coal technology demonstration project, net emissions increase</p>  |  | <p>Terms defined.</p> | <p>Revised, federal requirements.</p>         |
| <p>baseline actual emissions, projected actual emissions, reactivation of a very clean coal-fired EUSGU, repowering, temporary clean coal technology demonstration project</p>   |  | <p>Terms defined.</p> | <p>Added, federal requirements.</p>           |
| <p>actuals PAL for a major stationary source, allowable emissions, potential to emit,</p>  |  | <p>Terms defined.</p> | <p>Revised. Federal PAL requirements.</p>     |

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| CEMS, CERMS, CPMS, major emissions unit, PAL, PAL effective date, PAL effective period, PAL major modification, PAL permit, PAL pollutant, PEMS, significant emissions increase, significant emissions unit, small emissions unit |              | Terms defined.             | Added. Federal PAL requirements.           |
| pollution control projects (PCPs)   |              | Terms defined.             | Deleted. Court remand.                     |
| clean unit, pollution prevention  |              | Terms defined.             | Deleted. Court remand.                     |
| RACT  |              | Terms defined.             | Added. Federal requirement.                |
| 1720 A  | 1625 A       | General requirement.       | Revised. Federal requirement.              |
| 1720 B  | 1625 B       | General requirement.       | Added. Federal requirement.                |
| 1720 C  | 1625 C       | General requirement.       | Revised. State requirement.                |
| 1720 D  | 1625 D       | General requirement.       | Revised. Section renumbering.              |
| 1720 E  | 1625 E       | General requirement.       | Revised. State requirement.                |
| 1720 F, G, H  | 1625 F, G, H | General requirements.      | Added. State requirement.                  |
| 1730  | 1635         | Ambient air increments.    | Renumbered.                                |
| 1740  | 1645         | Ambient air ceilings.      | Renumbered.                                |
| 1750 A  | 1655 A       | Applications.              | Revised. State requirement.                |
| 1750 C  | 1655 C       | Applications.              | Revised. State requirement.                |
| 1750 D  |              | Applications.              | Repealed. State requirement.               |
| 1750 F  |              | Applications.              | Relocated to definition of "complete."     |
| 1760  | 1665         | Local zoning requirements. | Revised. State requirement.                |
| 1770 A  | 1675 A       | Performance testing.       | Revised. State requirement.                |
| 1770 B  |              | Performance testing.       | Deleted.                                   |
| 1770 C  | 1675 B       | Performance testing.       | Revised. State requirement.                |
| 1770 D  |              | Performance testing.       | Deleted. State requirement.                |
| 1770 E  | 1675 C       | Performance testing.       | Revised. State requirement.                |
| 1770 F  | 1675 D       | Performance testing.       | Revised. State requirement.                |
|   | 1675 E       | Performance testing.       | Added. State and federal requirements.     |
| 1780 B  | 1685 B       | Stack heights.             | Added. Federal requirement.                |
| 1790 A  |              | Exemptions.                | Deleted. Federal requirement.              |
| 1790 B  |              | Exemptions.                | Deleted. Federal requirement.              |
| 1790 C  |              | Exemptions.                | Deleted. Federal requirement.              |
| 1790 D  | 1695 A       | Exemptions.                | Revised. Federal requirement.              |
| 1790 E  | 1695 B       | Exemptions.                | Revised. State requirement.                |
| 1790 F  | 1695 C       | Exemptions.                | Revised. Renumbered.                       |
| 1790 G  | 1695 D       | Exemptions.                | Revised. Federal requirement; renumbering. |

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| 1790 H   | 1695 E   | Exemptions.  | Revised. Corrections; renumbering.       |
| 1790 I   |          | Exemptions.  | Deleted. Federal requirement.            |
| 1800 A   | 1705 A   | Control technology review.                                   | Revised. Federal requirement.            |
| 1800 B   | 1705 B   | Control technology review.                                   | Revised. Federal requirement.            |
| 1800 C   | 1705 C   | Control technology review.                                   | Revised. Federal requirement.            |
| 1810 A-B | 1715 A   | Source impact analysis.                                      | Revised. Federal requirement.            |
|          | 1715 B   | Source impact analysis.                                      | Added. Federal requirement.              |
| 1820 B   | 1725 B   | Air quality models.  | Renumbered.                              |
| 1830     | 1735     | Air quality analysis.  | Revised. Correction, renumbering.        |
| 1840     | 1745     | Source information.  | Renumbering.                             |
| 1850     | 1755     | Additional impact analyses.                                  | Renumbering.                             |
| 1860     | 1765     | Federal class I areas.                                       | Revised. Correction, renumbering.        |
| 1870 A   | 1775 A   | Public participation.  | Revised. State and federal requirements. |
| 1870 F   | 1775 F   | Public participation.  | Revised. State requirement.              |
| 1870 G   | 1775 G   | Public participation.  | Added. State requirement.                |
| 1880 A   | 1785 A   | Source obligation.   | Revised. Federal requirement.            |
| 1880 B   | 1785 B   | Source obligation.   | Revised. Federal requirement.            |
|          | 1785 C   | Source obligation.   | Added. Federal requirement.              |
| 1880 C   | 1785 D   | Source obligation.   | Revised. Federal requirement.            |
| 1880 D   | 1785 E   | Source obligation.   | Added. State requirement.                |
| 1890     | 1795     | Environmental impact statements.                             | Revised. Renumbering.                    |
| 1900     | 1805     | Disputed permits.  | Revised. Corrections.                    |
| 1920     | 1825     | Innovative control technology.                               | Revised. Renumbering.                    |
|          | 1835     | Clean Unit test for units subject to BACT or LAER            | Deleted. Court remand.                   |
|          | 1845     | Clean Unit test for units comparable to BACT.                | Deleted. Court remand.                   |
|          | 1855     | PCP requirements.  | Deleted. Court remand.                   |
|          | 1865     | PALs.  | Added. Federal requirements for PALs.    |
|          | 1925     | Changes to permits.  | Added. State requirement.                |
|          | 1935     | Administrative permit amendments.                            | Added. State requirement.                |
|          | 1945     | Minor permit amendments.                                     | Added. State requirement.                |
|          | 1955     | Significant permit amendments.                               | Added. State requirement.                |
|          | 1965     | Reopening for cause.   | Added. State requirement.                |
| 1930     |          | Reactivation and permanent shutdown.                         | Repealed. State requirement.             |
| 1940     | 1975     | Transfer of permits.   | Revised. State requirement.              |
| 1950 A-D | 1985 A-D | Permit invalidation, suspension, revocation and enforcement. | Revised. Federal requirement.            |
| 1950 E-J | 1985 E-J | Permit invalidation, suspension, revocation and enforcement. | Revised. State requirement.              |
| 1960     |          | Circumvention.   | Relocated to 1700 G.                     |
| 1970     |          | Review and confirmation.                                     | Repealed. State requirement.             |

|   |      |                                 |  |
|---|------|---------------------------------|--|
|   | 1995 | Existence of permit no defense. | Added. State requirement.                |
| Article 9 of 9 VAC 5 Chapter 80 - <b>SEE ALSO "CHANGES MADE SINCE PROPOSED STAGE."</b>  |      |                                 |  |
| 2000 A  |      | Applicability                   | Revised. Federal requirement.            |
| 2000 E  |      | Applicability                   | Revised. Federal requirement.            |
| 2000 F-G  |      | Applicability                   | Revised. Federal requirement.            |
| 2000 I-K  |      | Applicability.                  | Revised. Federal requirement.            |
| 2000 L-M  |      | Applicability                   | Revised. State requirement.              |
| 2010 C, Terms defined.  |      | See below.                      | See below.                               |
| emissions cap, emissions unit, enforceable as a practical matter, federally enforceable, major modification, major stationary source, necessary preconstruction approvals or permits, regulated NSR pollutant, secondary emissions, state operating permit program, stationary source         |      |                                 | Revised. State and federal requirements. |
| BACT, effective date of this revision, EUSGU, Federal Land Manager, federal operating permit, federal operating permit program, major NSR permit, major NSR permit program, minor NSR permit, minor NSR permit program, NSR permit, NSR program, PSD program, project, state operating permit |      |                                 | Added, state and federal requirements.   |
| actual emissions, net emissions increase  |      |                                 | Revised. Federal requirements.           |

|   |  |  |  |
|---|--|--|--|
| baseline actual emissions, clean coal technology, clean coal technology demonstration project, projected actual emissions, temporary clean coal technology demonstration project  |  |  | Added. Federal requirements.             |
| potential to emit   |  |  | Revised. Federal PAL requirements.       |
| actuals PAL for a major stationary source, allowable emissions, CEMS, CERMS, CPMS, major emissions unit, PAL, PAL effective date, PAL effective period, PAL major modification, PAL permit, PAL pollutant, PEMS, significant emissions increase, significant emissions unit, small emissions unit |  |  | Added. Federal PAL requirements.         |
| pollution control project (PCP)   |  |  | Deleted. Court remand.                   |
| Clean Unit, pollution prevention  |  |  | Deleted. Court remand.                   |
| minor NSR, qualifying pollutant, reconstruction   |  |  | Removed. State requirement.              |
| 2020 A  |  | General requirement.                           | Revised. Federal requirement.            |
| 2020 C  |  | General requirement.                           | Added. State requirement.                |
| 2020 D-G  |  | General requirement.                           | Revised. Renumbering; state requirement. |
| 2040  |  | Application information required.              | Revised. State and federal requirements. |
| 2050  |  | Standards and conditions for granting permits. | Revised. Federal requirement.            |
| 2060  |  | Action on permit application.                  | Revised. State requirement.              |
| 2070  |  | Public participation.                          | Revised. State requirement.              |
| 2090  |  | Application review and analysis.               | Revised. Federal requirement.            |

|          |          |  |  |
|----------|----------|--|--|
|          | 2091 A-D | Source obligation.   | Added. Federal requirement.              |
|          | 2091 E   | Source obligation.   | Added. State requirement.                |
| 2110     |          | Interstate pollution abatement.                              | Revised. Federal requirement.            |
| 2120 D-G |          | Offsets.   | Revised. State requirement.              |
| 2120 L-N |          | Offsets.   | Added. Federal requirement.              |
| 2140     |          | Exception.   | Revised. State requirement.              |
|          | 2141     | Clean units.   | Deleted. Court remand.                   |
|          | 2142     | Clean units.   | Deleted. Court remand.                   |
|          | 2143     |  | Deleted. Court remand.                   |
|          | 2144     |  | Added. Federal requirements for PALs.    |
| 2180     |          | Permit invalidation, suspension, revocation and enforcement. | Revised. State and federal requirements. |
| 2210 B   |          | Administrative permit amendments.                            | Revised. State requirements.             |
| 2240     |          | Reopening for cause.   | Revised. State requirements.             |

**Regulatory Flexibility Analysis**

*Please describe the agency’s analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: (1) the establishment of less stringent compliance or reporting requirements; (2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; (3) the consolidation or simplification of compliance or reporting requirements; (4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposal; and (5) the exemption of small businesses from all or any part of the requirements contained in the proposal.*

The primary purpose of the regulatory flexibility analysis is to identify and address regulatory alternatives which minimize any significant impact of the regulation on small businesses. These regulations were developed to provide regulatory relief for large industry from the major NSR permitting program following a specific structure set forth by EPA. However, major industries in Virginia also include a significant number of small businesses. Because the structure of the regulations follows specific requirements set forth by federal regulations, it is difficult to promulgate requirements unique to small businesses. However, the regulations will not have a significant impact on small businesses because the regulations relieve the regulatory burden, or otherwise have a positive economic effect, on all of the entities subject to the regulations.

Therefore, any (1) establishment of less stringent compliance or reporting standards; (2) establishment of less stringent schedules or deadlines for compliance or reporting requirements; (3) consolidation or simplification of compliance or reporting requirements; (4) establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; or (5) exemption of small businesses from all or any part of the requirements contained in the proposed regulation for all businesses would directly, significantly and adversely affect the benefits that would be achieved through the implementation of the regulations and possibly jeopardize compliance with federal requirements.

These regulation changes will reduce the regulatory burden associated with the major NSR program for all sources, including all small businesses, by improving the operational flexibility of owners and operators, improving the clarity of requirements, and providing alternatives that sources may take advantage of in order to further improve their operational flexibility. As a result, the program changes

provided in the final rule are not expected to result in any increases in expenditure by any small business.

We have therefore concluded that these final regulations will relieve regulatory burden for all affected entities, including small businesses.

## Legal Requirements

*Please identify the state and/or federal source of the legal requirements that necessitate promulgation of the proposal, including: (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly bill and chapter numbers, if applicable, and (2) promulgating entity, i.e., the agency, board, or person. Describe the legal requirements and the extent to which the requirements are mandatory or discretionary.*

### Promulgating Entity

The promulgating entity for this regulation is the State Air Pollution Control Board.

### Identification of Specific Applicable Federal Requirements

On December 31, 2002, EPA promulgated its final rule revising the federal New Source Review (NSR) permitting program for PSD (attainment) and nonattainment areas, by publishing the rule in the Federal Register (67 FR 80185). The new rule, signed by the Administrator on November 22, 2002, affects 40 CFR 51.165 and 40 CFR 51.166. The new rule incorporates five main elements: changes to the method for determining baseline actual emissions; changes to the method for determining emissions increases due to an operational change; provisions for pollution control projects (PCPs); provisions for Clean Units; and provisions to allow for plantwide applicability limits (PALs). EPA states in the Federal Register that the final rule revisions become effective on March 3, 2003 and will apply beginning on that date in any area for which EPA is the permit reviewing authority, and in any area for which EPA has delegated the authority to issue permits under the federal program to the state or local agency. In areas where the state or local agency is administering the NSR program under an approved SIP, the state or local agency must adopt and submit revisions to the SIP to reflect the rule revisions no later than January 2, 2006. The revised SIP must be the same as or equivalent to the revised federal program.

On June 24, 2005, the D.C. Circuit Court of Appeals vacated the Clean Unit and PCP provisions, which therefore can no longer be legally implemented.

### Prevention of Significant Deterioration (PSD)

Part C of the Clean Air Act is entitled, "Prevention of Significant Deterioration of Air Quality." As described in section 160, the purpose of Part C is to protect existing clean air resources. Part C requires that the SIP include a PSD program. Section 161 of Part C says:

In accordance with the policy of section 101(b)(1), each applicable implementation plan shall contain emission limitations and such other measures as may be necessary, as determined under regulations promulgated under this part, to prevent significant deterioration of air quality in each region (or portion thereof) designated pursuant to section 107 as attainment or unclassifiable.

This means that the air in areas that meet national clean air standards may not be allowed to become less clean, that is, to deteriorate.

Sections 162 through 169B go on to provide the details of how each state's PSD program is to be designed and operated. Section 165, "Preconstruction Requirements," is the section of the Act that deals with new source review permit programs. This section requires that sources obtain permits demonstrating that they will not contribute to air pollution in excess of that allowed by the Act. Section

165 also specifies what steps are needed to coordinate this permitting process with the Federal Land Managers, who are responsible for maintaining air quality in the cleanest areas of the country: the national parks. Section 165 specifies that new sources locating in attainment areas must meet Best Available Control Technology (BACT), which is defined in § 169. Section 166 requires EPA to regulate certain types of pollutants in PSD areas.

40 CFR 51.166 provides details of what state PSD programs must include. These details include how to revise the program, how and when to assess the program, public participation requirements, and how to amend the program. Section 51.166(a)(1) states, "Each applicable State Implementation plan shall contain emission limitations and such other measures as may be necessary to prevent significant deterioration of air quality." Section 51.166(a)(7) specifies the source applicability for the review of major sources and modifications and defines certain principles to be applied in the administration of the program. The remainder of § 51.166 provides details on what the SIPs must contain.

Significant PSD concepts such as "major stationary source," "major modification," "net emissions increase," "potential to emit," "baseline concentration," and "significant" are defined in § 51.166(b). In § 51.166(c), ambient air increments are found, while ambient air ceilings are specified in § 51.166(d). Area classifications are restricted in § 51.166(e); exclusions from increment consumption are listed in § 51.166(f). Redesignation of Class I, II, or III areas is discussed in § 51.166(g) and stack height requirements are given in § 51.166(h). Exemptions are found in § 51.166(i). Section 51.166(j) covers control technology review, specifically § 51.166(j)(2) and (3) which require that new sources or major modifications must meet BACT as defined in § 51.166(b)(12). Requirements for source impact analysis are given in § 51.166(k). Air quality models are described in § 51.166(l). Preapplication analysis, post-construction monitoring, and operation of monitoring stations are found in § 51.166(m), air quality analysis. Sources must provide information as described in § 51.166(n), as well as additional impact analyses as described in § 51.166(o). Sources that affect federal Class I areas must meet the requirements of § 51.166(p), which also describes the responsibilities of the Federal Land Manager. Public participation requirements are found in § 51.166(q). Section 51.166(r) includes additional information on source obligation, and § 51.166(s) allows for the use of innovative control technologies.

The clean unit test for emissions units that are subject to BACT or LAER were originally described in § 51.166(t), while clean unit provisions for emissions units that achieve an emission limitation comparable to BACT were covered in § 51.166(u). Pollution control project exclusion procedural requirements were originally found in § 51.166(v). (Note that both of these provisions have been vacated through a court order and cannot be legally implemented. As of this writing, EPA has not revised its regulations accordingly.) Finally, the plan must provide for plantwide applicability limits, as described in § 51.166(w).

### Nonattainment

Part D of the Clean Air Act, "Plan Requirements for Nonattainment Areas," describes how nonattainment areas are established, classified, and required to meet attainment. Subpart 1, Nonattainment Areas in General, consists of §§ 171 through 179, and provides the overall framework of what nonattainment plans are to contain, permit requirements, planning procedures, motor vehicle emission standards, and sanctions and consequences of failure to attain. Subpart 2, Additional Provisions for Ozone Nonattainment Areas, consists of §§ 181 through 185, and provides more detail on what is required of areas designated as nonattainment for ozone.

Section 182 (a)(2)(C) sets out the general requirements for new source review programs in all nonattainment areas and mandates a new and modified major stationary source permit program that meets the requirements of §§ 172 and 173 of the Act. Section 172 contains the basic requirement for a permit program, while § 173 contains the specifics which are summarized below.

Section 173(a) provides that a permit may be issued if the following criteria are met:

1. Offsets have been obtained for the new or expanding sources from existing sources so that total allowable emissions (i) from existing sources in the region, (ii) from new or modified sources which are

not major emitting facilities, and (iii) from the proposed new source will be sufficiently less than total emissions from existing sources prior to the application for the permit so as to represent reasonable further progress.

2. The proposed source is required to comply with the lowest achievable emission rate (LAER).
3. The owner of the proposed source has demonstrated that all major stationary sources owned or operated by the owner in the state are subject to emission limitations and are in or on a schedule for compliance with all applicable emission limitations or standards.
4. The SIP is being adequately implemented for the nonattainment area in which the proposed source is to be located.
5. An analysis of alternative sites, sizes, production processes, and environmental control techniques for the proposed source demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

Section 173(b) prohibits the use of any growth allowance that is part of a SIP revision in effect prior to the adoption of the 1990 Amendments to the Act for areas designated nonattainment after adoption of the amendments.

Section 173(c) provides that the owner of the proposed new or modified source may obtain offsets only from the nonattainment area in which the proposed source is to be located. Offsets may be obtained from other nonattainment areas whose emissions affect the area where the proposed source is to be located, provided the other nonattainment area has an equal or higher classification and the offsets are based on actual emissions.

Section 173(d) provides that states must promptly submit any control technology information relative to the permit program to EPA for entry into the BACT/LAER clearinghouse.

Section 173(e) provides that the permit program must allow the use of alternative or innovative means to achieve offsets for emission increases due to rocket engine and motor firing and cleaning related to the firing.

A major stationary source is defined for general application in § 302 of the Act as "any facility or source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant." For nonattainment areas defined as serious or worse, § 182(c) specifically defines a major stationary source as a facility emitting fifty tons per year or more; and for nonattainment areas defined as severe or worse, § 182(d) specifically defines a major stationary source as a facility emitting twenty-five tons per year or more. Section 182(f) provides that requirements which apply to major stationary sources of VOCs under the Act shall also apply to major stationary sources of NO<sub>x</sub>.

Section 182(a)(4) sets out the requirements for marginal areas with respect to offset ratios, providing for a minimum ratio of total emissions reduction of VOCs to total increased emissions of VOCs of 1.1 to 1. Likewise § 182(b)(5) sets out the offset requirements for moderate nonattainment areas, specifying the ratio to be at least 1.15 to 1. Accordingly, § 182(c)(10) sets out the offset requirements for serious nonattainment areas, specifying the ratio to be at least 1.2 to 1. Finally, § 182(d)(2) sets out the offset requirements for severe nonattainment areas, specifying the ratio to be at least 1.3 to 1.

Sections 182(c)(6) through (c)(8) contain some additional specifics for serious or worse nonattainment areas concerning the establishment of a de minimis level for expanding existing sources and the allowance of internal offsets as an alternative to the permit requirements. New source permit programs must include provisions to require permits for modifications of all existing sources unless the increase in net emissions from the source does not exceed 25 tons when aggregated with all other net increases in emissions from the source over any period of five consecutive calendar years, including the calendar year in which the increase occurs. The program must also include provisions concerning internal offsets as

alternatives to the permit requirements. For sources emitting less than 100 tons per year and applying for a permit to expand, a permit will be required unless the owner elects to offset the increase by a greater reduction in emissions of the same pollutant from other operations, units, or activities within the source at an internal offset ratio of at least 1.3 to 1. If the owner does not choose the option of an internal offset, a permit will be required but the control technology level required will be best available control technology (BACT) instead of lowest achievable emission rate (LAER). For sources emitting 100 tons or more per year and applying for a permit to expand, control technology requirements which constitute LAER will be required unless the owner elects to offset the increase by a greater reduction in emissions of the same pollutant from other operations, units, or activities within the source at an internal offset ratio of at least 1.3 to 1.

40 CFR 51.165 enumerates permit requirements for nonattainment areas. This section describes what permitting requirements are to be contained in the SIP. Specific definitions of key terms such as "potential to emit," "major stationary source," "major modification," "allowable emissions," and "lowest achievable emission rate," are found in § 51.165(a)(1). In § 51.166(a)(2), the SIP must include a preconstruction review program to satisfy the requirements of §§ 172(b)(6) and 173 of the Act, and must apply to any new source or modification locating in a nonattainment area; § 51.166(a)(2) also defines certain principles to be applied in the administration of the program. Section 51.165(a)(3) describes how emissions and emission reductions are to be measured and included in the SIP; § 51.165(a)(4) lists a number of exemptions. Section 51.165(a)(5) stipulates that sources must meet the SIP as well as other state and federal requirements. In accordance with § 51.165(a)(6), owners of projects at existing emissions units at a major stationary source in circumstances where there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase must monitor emissions and record and report certain data; additionally, § 51.165(a)(7) requires that such information be made available for review.

Section 51.165(b) requires that sources meet the requirements of § 110(a)(2)(d)(i). This section also provides significance levels of pollutants which may not be exceeded by any source or modification.

Clean Unit Tests for emissions units that are subject to LAER, which provide the option of using the Clean Unit Test to determine whether emissions increases at a clean unit are part of a project that is a major modification, are described in § 51.165(c); similar provisions for emissions units that achieve an emission limitation comparable to LAER are found in § 51.165(d). Section 51.165(e) contains the procedural requirements for pollution control project exclusions. (Note that both of these provisions have been vacated through a court order and cannot be legally implemented. As of this writing, EPA has not revised its regulations accordingly.) Finally, § 51.165 (f) provides requirements for plantwide applicability limits.

### General Federal Requirements

Sections 109 (a) and (b) of the Clean Air Act (CAA) require EPA to prescribe primary and secondary air quality standards to protect public health and welfare, respectively, for each air pollutant for which air quality criteria were issued before the enactment of the 1970 Clean Air Act. These standards are known as the National Ambient Air Quality Standards (NAAQS). Section 109 (c) requires EPA to prescribe such standards simultaneously with the issuance of new air quality criteria for any additional air pollutant. The primary and secondary air quality criteria are authorized for promulgation under Section 108.

Section 110(a) of the CAA mandates that each state adopt and submit to EPA a plan which provides for the implementation, maintenance, and enforcement of each primary and secondary air quality standard within each air quality control region in the state. The SIP shall be adopted only after reasonable public notice is given and public hearings are held. The plan shall include provisions to accomplish, among other tasks, the following:

1. establish enforceable emission limitations and other control measures as necessary to meet the applicable requirements of the CAA, including economic incentives such as fees, marketable permits, and auctions of emissions rights;

2. establish a program for the enforcement of the emission limitations and schedules for compliance; and
3. establish programs for the regulation of the modification and construction of any stationary source within areas covered by the plan to assure the achievement of the ambient air quality standards, including a permit program as required by Parts C and D of Title I of the CAA.

40 CFR Part 50 specifies the NAAQS: sulfur dioxide, particulate matter, carbon monoxide, ozone (and its precursors, volatile organic compounds) nitrogen dioxide, and lead.

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of SIPs. These requirements mandate that any such plan shall include several provisions, as summarized below.

Subpart F (Procedural Requirements) specifies definitions of key terms, stipulations and format for plan submission, requirements for public hearings, and conditions for plan revisions and federal approval.

Subpart G (Control Strategy) specifies the description of emissions reductions estimates sufficient to attain and maintain the standards, the description of control measures and schedules for implementation, time periods for demonstrations of the control strategy's adequacy, an emissions inventory, an air quality data summary, data availability, special requirements for lead emissions, stack height provisions, and intermittent control systems.

Subpart I (Review of New Sources and Modifications) specifies legally enforceable procedures, public availability of information on sources, identification of responsible agency, and administrative procedures.

Section 51.160 of Subpart I specifies that the plan must stipulate legally enforceable procedures that enable the permitting agency to determine whether the construction or modification of a facility, building, structure or installation, or combination of these will result in either a violation of any part of a control strategy or interference with attainment or maintenance of a national standard and, if such violation or interference would occur, the means by which the construction or modification can be prevented. The procedures must identify types and sizes of facilities, buildings, structures or installations which will be subject to review and discuss the basis for determining which facilities will be subject to review. The procedures must provide that owners of facilities, buildings, structures or installations must submit information on the nature and amounts of emissions and on the location, construction and operation of the facility. The procedures must ensure that owners comply with applicable control strategies after permit approval. The procedures must discuss air quality data and modeling requirements on which applications must be based.

Section 51.161 of Subpart I specifies that the permitting agency must provide opportunity for public comment on information submitted by owners and on the agency's analysis of the effect of construction or modification on ambient air quality, including the agency's proposed approval or disapproval. Section 51.161 also specifies the minimum requirements for public notice and comment on this information.

Section 51.162 of Subpart I specifies that the responsible agency must be identified in the plan.

Section 51.163 of Subpart I specifies that the plan must include administrative procedures to be followed in determining whether the construction or modification of a facility, building, structure or installation will violate applicable control strategies or interfere with the attainment or maintenance of a national standard. Section 51.164 of Subpart I governs stack height procedures. It requires that such procedures provide a degree of emission limitation required of any source for control of any air pollutant that is not affected by so much of any source's stack height that exceeds good engineering practice (GEP) or by any other dispersion technique. The procedures must provide that before a state issues a permit to a source based on a GEP stack height that exceeds the standard allowable height, the state must notify the public of the availability of the demonstration study and must provide opportunity for public hearing.

Subpart L (Legal Authority) specifies identification of legal authority to implement plans and assignment of legal authority to local agencies.

Section 51.230 of Subpart L specifies that each SIP must show that the state has the legal authority to carry out the plan, including the authority to perform the following actions:

1. adopt emission standards and limitations and any other measures necessary for the attainment and maintenance of the national ambient air quality standards;
2. enforce applicable laws, regulations, and standards, and seek injunctive relief;
3. obtain information necessary to determine whether air pollution sources are in compliance with applicable laws, regulations, and standards, including authority to require recordkeeping and to make inspections and conduct tests of air pollution sources; and
4. prevent construction, modification, or operation of a facility, building, structure, or installation, or combination thereof, which directly or indirectly results or may result in emissions of any air pollutant at any location which will prevent the attainment or maintenance of a national standard.

Section 51.231 of Subpart L requires the identification of legal authority as follows:

1. the provisions of law or regulation which the state determines provide the authorities required under § 51.231 must be specifically identified, and copies of such laws or regulations must be submitted with the plan; and
2. the plan must show that the legal authorities specified in Subpart L are available to the state at the time of submission of the plan.

#### State Requirements

Code of Virginia § 10.1-1307 A provides that the board may, among other activities, develop a comprehensive program for the study, abatement, and control of all sources of air pollution in the Commonwealth.

Code of Virginia § 10.1-1308 provides that the board shall have the power to promulgate regulations abating, controlling, and prohibiting air pollution throughout or in any part of the Commonwealth in accordance with the provisions of the Administrative Process Act. It further provides that the regulations shall not promote or encourage any substantial degradation of present air quality in any air basin or region which has an air quality superior to that stipulated in the regulations.

## Need

*Please explain the need for the new or amended regulation and the potential consequences that may result in the absence of the regulation. Detail the specific reasons the regulation is essential to protect the health, safety or welfare of citizens. Discuss the goals of the proposal, environmental benefits of the proposal, and the problems the proposal is intended to solve.*

#### Identification of Specific Planning Requirements Establishing the Need

The current regulations governing major NSR may need to be amended in order to meet the new requirements of a rule promulgated by U.S. EPA. EPA's major NSR reform rule incorporates the following main elements: (i) changes to the method for determining baseline actual emissions; (ii) changes to the method for determining emissions increases due to an operational change; and (iii) provisions for PALs.

#### Prevention of Significant Deterioration (PSD)

The PSD program is designed to protect air quality in areas where the air is cleaner than required by the NAAQS. The program has three classifications for defining the level of allowable degradation: Class I is the most stringent classification, allowing for little additional pollution, while Class III allows the most. All of Virginia is classified at the moderate level, Class II, with the exception of two Class I federal lands.

The primary control measure of the PSD program is new source review. Prior to construction or expansion of an industrial facility, a permit must be issued that ensures that the facility will not emit pollutants in sufficient quantity to make a significant contribution to the deterioration of air quality or to violate the NAAQS. Additionally, the owner must provide an analysis of the impairment to air quality related values (including visibility) that would occur as a result of the source or modification. The permit application and the department review and analysis must be subject to a public hearing prior to issuing the permit. The facility must use the best available control technology to control emissions. If the facility is to be located near a Class I area, the federal land manager (FLM) is involved in the review process. Also in such cases, additional data with respect to impact on the Class I area is required. Any disagreements with the FLM must be addressed prior to releasing the application and analysis to public comment.

### Nonattainment

When concentrations of ambient air pollution exceed the federal standard the area is considered to be out of compliance and is designated as "nonattainment." Numerous counties and cities within the Commonwealth have at one time been identified as ozone nonattainment areas according to the Act. Currently, one area continues to be designated nonattainment for the 1-hour ozone standard, while a number of new areas will be designated nonattainment for the 8-hour standard.

The Act has a process for evaluating the air quality in each region and identifying and classifying each nonattainment area according to the severity of its air pollution problem for ozone. There are five nonattainment area classifications called marginal, moderate, serious, severe and extreme. Marginal areas are subject to the least stringent requirements and each subsequent classification (or class) is subject to successively more stringent control measures. Areas in a higher classification of nonattainment must meet the mandates of the lower classifications plus the more stringent requirements of its own class. If a particular area fails to attain the federal standard by the legislatively mandated attainment date, EPA is required to reassign it to the next higher classification level (denoting a worse air quality problem), thus subjecting the area to more stringent air pollution control requirements.

Permits issued in nonattainment areas require the facility owner to apply control technology that meets the lowest achievable emission rate and to obtain emission reductions from existing sources. The emission reductions must offset the increases from the proposed facility by the ratio specified in the Act for that particular nonattainment classification. The offset ratio for ozone nonattainment areas classified as marginal is 1.1 to 1, for moderate areas 1.15 to 1, for serious areas 1.2 to 1, and for severe areas 1.3 to 1. For areas with no classification, the offset ratio is 1 to 1. For all other pollutants, the offset ratio is 1 to 1.

### General Planning Requirements

Among the primary goals of the Clean Air Act (Act) are the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) and the prevention of significant deterioration (PSD) of air quality in areas cleaner than the NAAQS.

The Act gives EPA the authority to establish the NAAQS, which are designed to protect the health of the general public with an adequate margin of safety. The NAAQS establish the maximum limits of pollutants that are permitted in the outside ambient air. The Act requires that each state submit a plan (called a State Implementation Plan or SIP), including any laws and regulations necessary to enforce the plan, showing how the air pollution concentrations will be reduced to levels at or below these standards (i.e., attainment). Once the pollution levels are within the standards, the plan must also demonstrate how the

state will maintain the air pollution concentrations at reduced levels (i.e., maintenance). The Virginia SIP was submitted to EPA in early 1972. Many revisions to the SIP have been made since the original submittal in 1972. The Clean Air Act is specific concerning the elements required for an acceptable SIP. If a state does not prepare a SIP, or EPA does not approve a submitted SIP, then EPA itself is empowered to take the necessary actions to attain and maintain the air quality standards. Generally, the SIP is revised, as needed, based upon changes in the federal Clean Air Act and its requirements.

The heart of the SIP is the control strategy. The control strategy describes the measures to be used by the state to attain and maintain the air quality standards. There are three basic types of control measures: stationary source control measures, mobile source control measures, and transportation source control measures. Stationary source control measures are directed at emissions primarily from commercial/industrial facilities and operations. Mobile source control measures are directed at tailpipe and other emissions from motor vehicles, and transportation source control measures affect motor vehicle location and use.

A key control measure for managing the growth of new emissions is to require preconstruction review of new major facilities or major modifications to existing ones. This review is accomplished through a permit program for new and modified stationary sources. The program requires that owners obtain a permit prior to the construction of a new industrial or commercial facility or the modification (physical change or change in the method of operation) of an existing one. Program requirements differ according to the facility's potential to emit a certain amount of a specific pollutant and the air quality status of the area where the facility is or will be located. Requirements for facilities considered major due to their potential to emit a specified pollutant are more stringent than for less polluting facilities. Requirements for major facilities in nonattainment areas are considerably more stringent than for those in areas which meet the standard.

### Impact on Family

*Please assess the impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: (1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; (2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; (3) strengthen or erode the marital commitment; and (4) increase or decrease disposable family income.*

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It is not anticipated that these regulation amendments will have a direct impact on families. However, there will be positive indirect impacts in that the regulation amendments will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

**COMMONWEALTH OF VIRGINIA  
STATE AIR POLLUTION CONTROL BOARD**

**SUMMARY AND ANALYSIS OF PUBLIC TESTIMONY RECEIVED  
DURING SUSPENSION COMMENT PERIOD FOR  
REGULATION REVISION E03  
CONCERNING**

**Major New Source Review Reform  
(9 VAC 5 CHAPTER 80)**

**INTRODUCTION**

On July 11, 2005, the board published for public comment a proposal to amend its regulations concerning major new source review reform. In response to that request, comments were submitted that resulted in several changes being made to the original proposal. On December 8, 2005, the board adopted final amendments to its regulations concerning major new source review reform. The final regulation amendments as adopted were published in the Virginia Register on January 23, 2006 and were to become effective on February 22, 2006. Pursuant to § 2.2-4007 K of the Code of Virginia, at least 25 persons requested an opportunity to submit oral and written comments on the changes to the proposed regulation. Because of the substantive nature of these additional changes and the requests from petitioners, the effective date was suspended and the proposal was reopened for public comment on those changes to the final regulation.

A public meeting was advertised accordingly and held in Richmond on April 5, 2006 and the public comment period closed on April 5, 2006. The substantive changes made to the proposed regulation subject to the public comment period are summarized below followed by a summary of the public participation process and an analysis of the public testimony, along with the basis for the decision of the board.

**SUMMARY OF CHANGES TO ORIGINAL PROPOSAL**

Below is a brief summary of the substantive changes made to the original proposal.

1. Provisions tying the effective date of the final rules to EPA approval were removed. [9 VAC 5-80-1605 E, 9 VAC 5-80-1615 C (definition of "effective date of this revision") 9 VAC 5-80-2000 F, 9 VAC 5-80-2010 C (definition of "effective date of this revision")]
2. Provisions for Clean Units were removed. [9 VAC 5-80-1605 H 5 and 6, 9 VAC 5-80-1615 C (definitions of "Clean Unit" and "net emissions increase"), 9 VAC 5-80-1785 B, 9 VAC 5-80-1835, 9 VAC 5-80-1845, 9 VAC 5-80-2000 G 5 and 6, 9 VAC 5-80-2010 C (definitions of "Clean Unit" and "net emissions increase"), 9 VAC 5-80-2091 B, 9 VAC 5-80-2120 L, 9 VAC 5-80-2141, 9 VAC 5-80-2142]
3. Provisions for pollution control projects (PCPs) were removed. [9 VAC 5-80-1605 J, 9 VAC 5-80-1615 C (definitions of "major modification," "pollution control project" and "pollution prevention"), 9 VAC 5-80-1855, 9 VAC 5-80-2000 J, 9 VAC 5-80-2010 C (definitions of "major modification," "pollution control project," and "pollution prevention."), 9 VAC 5-80-2120 M and N, 9 VAC 5-80-2143]

4. The definition of “baseline actual emissions” was revised to allow sources the use of a different time period in determining baseline actual emissions if a case can be made that the proposed alternative time period is more representative of normal source operation. [9 VAC 5-80-1615 C, subdivision b of definition of “baseline actual emissions”, 9 VAC 5-80-2010 C, subdivision b of definition of “baseline actual emissions”]

5. Provisions that exclude emission increases that could be accommodated and are unrelated to the project, including demand growth, from projected actual emissions were removed. [9 VAC 5-80-1615 C (definition of “projected actual emissions,” subdivisions b, c and d), 9 VAC 5-80-1785 B 1 c, 9 VAC 5-80-2010 C (definition of “projected actual emissions,” subdivisions b, c and d), 9 VAC 5-80-2091 B 1 c]

### **SUMMARY OF PUBLIC PARTICIPATION PROCESS**

A public meeting was held in Richmond, Virginia on April 5, 2006. Three persons attended the meeting, one of whom offered testimony; and 12 additional written comments were received during the public comment period. As required by law, notice of this meeting was given to the public on March 6, 2006 in the Virginia Register. In addition, personal notice of this meeting and the opportunity to comment was given by mail to those persons on the Department of Environmental Quality’s (DEQ’s) list to receive notices of proposed regulation revisions. A list of meeting attendees and the complete text or an account of each person’s testimony is included in the meeting report which is on file at DEQ.

### **ANALYSIS OF TESTIMONY**

Below is a summary of each person’s testimony and the accompanying analysis. Included is a brief statement of the subject, the identification of the commenter, the text of the comment and the board’s response (analysis and action taken). Each issue is discussed in light of all of the comments received that affect that issue. The board has reviewed the comments and developed a specific response based on its evaluation of the issue raised. The board’s action is based on consideration of the overall goals and objectives of the air quality program and the intended purpose of the regulation.

#### **Demand Growth: General Issues**

1. **SUBJECT:** Support for removal of demand growth provisions.

**COMMENTER:** Southern Environmental Law Center (SELC) on behalf of American Lung Association of Virginia, Appalachian Voices, National Parks Conservation Association, Virginia Conservation Network, Virginia League of Conservation Voters

**TEXT:** When EPA first put forth an actual-to-projected-actual test for non-power plant sources, it proposed eliminating the demand growth exclusion from projected actuals for both electric utilities and other industrial facilities, stating, “Demand is inextricably intertwined with changes that improve a source’s ability to utilize its capacity; thus, it cannot be said that demand growth is an ‘independent factor,’ separate from a given physical or operational change.” That is, EPA initially identified the fundamental problem with a demand growth exception--that there

is no plausible way to distinguish emissions increases solely attributable to demand growth from emissions increases due to a physical change at emissions unit.

Even worse, because demand growth is so difficult to identify, the exemption relies nearly exclusively on the operator to inform regulators when an emissions increase is due to an NSR-triggering event or due simply to exempted demand growth. It is this aspect of the exemption that creates the dramatic potential for abuse. As EPA remarked:

[T]he demand growth exclusion is problematic because it is self-implementing and self-policing. Because there's no specific test available for determining whether an emissions increase indeed results from an independent factor such as demand growth, versus factors relating to the change at the unit, each company with a utility unit presently adopts its own interpretation. . . . Moreover, such companies are not necessarily required to provide their interpretation of demand growth-related emissions to the permitting agency. Thus, with minimal, if any, explanation, a source may merely deduct the emissions increases it believes are attributable to demand growth from the total emissions data it supplies to the permitting agency demonstrating that it is below its projected future actuals. Vesting such unrestricted discretion in the regulated entity inevitably leads to enforcement problems.

At the December 2005 meeting, the board raised this precise enforcement concern with the representative for the Virginia Manufacturers Association (VMA), who conceded that if a demand growth exception was adopted, regulators would have to trust industrial operators to accurately deduct demand growth-related emissions from their projected actuals. The VMA argued that such blind trust would be acceptable because only the regulated industries could adequately understand their own unique economic and operating conditions. The board rightly rejected this explanation for what it is--a rationalization for allowing the fox to guard the henhouse.

Moreover, while the demand growth exemption would bring significant complications and costs to NSR enforcement (as well as increases in air pollution), it would not to provide any concomitant benefits. This is because the primary rationale for the exemption--that emission increases unrelated to a physical or operational change should not trigger NSR--is already present in the governing federal statute. (The Clean Air Act defines "modification" as "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in emission of any air pollutant not previously emitted.") Stated differently, if DEQ determines that an emissions increase is not due to a "physical change in, or change in the method of operation of, a stationary source," then DEQ will exempt the emissions increases from NSR without any obligation to separate out demand growth emissions.

The demand growth exemption would replace DEQ's authority with the absurdity of self-enforcement. There is no conceivable need for DEQ to surrender its enforcement discretion to the regulated industries through adoption of this unworkable and unenforceable exemption.

In 2002, when EPA reversed course to add a demand growth exemption, it failed to provide any method for distinguishing emissions increases solely attributable to demand growth from emissions increases due to a physical change. The demand growth exclusion, therefore, would create a major loophole in the NSR program that would allow sources both to under-predict future emissions and to avoid enforcement for exceeding projected actual permit limits by

attributing the emissions to demand growth. Sources would maintain that any post-change emissions increases due to output increases up to pre-change nameplate capacity are due to demand growth, regardless of the facility's pre-change actual operating profile.

NSR plays a vital role in improving Virginia's air quality. NSR is unique in that it is a proactive environmental program, giving the Commonwealth the ability to assess potential impacts of new pollution sources before they are constructed, and to ensure that sources can be accommodated within an area's overall plan for maintaining or achieving healthy air. In deleting the demand growth exemption, the board has recognized the importance of NSR. The demand growth exclusion provides no benefit for NSR enforcement, and would in fact guarantee massive, unregulated increases in pollution. It should not be included in Virginia's NSR regulations.

**RESPONSE:** As the commenter correctly asserts, the concept of a demand growth exemption is already present in the Clean Air Act definition of "modification"; the reform revisions merely make this provision clear. Earlier in the definition of "projected annual emissions," the Virginia regulations state that in determining the projected actual emissions, the owner shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the state or federal regulatory authorities, and compliance plans under the approved implementation plan. Exclusions related to demand growth would obviously be considered to be part of the "relevant information" to be considered by the source and provided to DEQ. Removal of the specific exclusions in subdivision c do not prevent a source from incorporating these exemptions in determining their projected emissions; rather, it removes detail useful to both DEQ and the source in making such a determination.

It is unclear why the commenters characterize demand growth as "difficult to identify," as the specific types of information to be maintained and reported by the source are clearly identified in the regulations. The commenters do not suggest who, other than the company, could provide this information—indeed, the board customarily relies on all regulated sources to provide the documentation from which permitting and compliance decisions are made. Finally, the regulations also specify that this information be submitted to the board in advance of initiating the project. Should the information be faulty or inadequate, the project could not proceed until these requirements were met to the satisfaction of the board. How this process would constitute a replacement of DEQ enforcement authority is not explained by the commenters.

To characterize the inclusion of demand growth as "blind trust" and a "surrender of enforcement discretion" is inaccurate. All reporting and recordkeeping relies, in some degree, on the source to properly develop and maintain information sufficient to demonstrate compliance. Sometimes what is required of the source is explicitly spelled out in the regulations: they shall install a monitor, measure x pollutant, and demonstrate x levels of emissions. Sometimes there is a more general directive to the source: they shall operate in such a way as to minimize emissions. Either way, the source must demonstrate to the satisfaction of the board that they are meeting the requirements of the applicable regulatory program. It is obviously in the best interest of the source to maintain information sufficient to justify its actions and to avoid compliance problems. This is true of all emissions information, and not just that attributable to demand growth.

In the case of the demand growth exclusion, there are a number of provisions in the regulations that require reporting of emissions attributed to demand growth, and consequences if the

source's actual emissions do not meet the predicted levels. For example, in the PSD regulation, 9 VAC 5-40-1785 B 1 c requires that before beginning actual construction of the project, the owner shall document and maintain a record of the description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, and any netting calculations. 9 VAC 5-80-1785 D further requires that the owner provide notice of the availability of the required advance information to the board before beginning actual construction. This section also specifies that should a given project be part of a major modification that resulted in a significant emissions increase, the owner is in violation of the rules of the board and may be subject to enforcement action. Finally, this information may be reviewed on a routine basis as a result of a source's normal Title V permit review process.

Note that while EPA did express some reservations about demand growth in their earlier proposal, they then further considered the matter and, based on additional public comment, made a decision to include demand growth. It is not unusual for an agency to make changes to proposals, particularly for complex programs such as NSR, and the fact that EPA later changed its position does not undermine the changes.

The commenters do not show how including demand growth could "guarantee massive, unregulated increases in pollution." In addition to the recordkeeping and reporting requirements mentioned above, projects exempt from major NSR are still subject to minor NSR, and would be subject to BACT. If an increase in emissions could have occurred within a source's permitted limits, and that increase is not the result of the project under major NSR, then there is no point in or environmental benefit derived from including those emissions in a major NSR determination.

Finally, EPA has indicated that it is reluctant to approve into the SIP any NSR regulations that do not include the demand growth exclusion, stating that not allowing such emission increases to be excluded from the determination of projected actual emissions would be deviating substantially from a federal requirement using a justification that the court had clearly denied. In seeking EPA's approval of the proposed revisions to the final rule, Virginia would have to develop "a strong, empirical justification for demonstrating that the proposed regulation without the demand growth exclusion is equivalent to Federal requirements." A disapproved SIP has serious consequences for the Commonwealth. EPA would likely impose a federal implementation plan (FIP) that would include the demand growth exclusion--as well as a 10-year lookback, multiple pollutant baselines, and other modifications to the program that Virginia has developed and the board has previously approved. Sources would have to submit permit applications to both EPA and Virginia, with the EPA-approved permits taking precedence. Apart from wasting valuable state resources, this would be contrary to Virginia's long-held position that the state should oversee its major source permitting program, which is why the state's NSR permitting regulations have been approved into the SIP rather than being left to EPA as a delegated program. The ability of the state to submit redesignation requests in the absence of an approved SIP would also be endangered. EPA could also impose sanctions, including withholding of funding for highway projects and grant money for environmental programs. The exclusion of demand growth at the expense of the Commonwealth maintaining an approved SIP would create a far greater negative impact to the environment than simple inclusion of demand growth itself.

Therefore, the demand growth provisions have been restored to the regulations, with the addition of some language to clarify the intent of the provision and ensure consistency in its

application. Note that no changes have been made to the recordkeeping, reporting, and notification requirements. Sources utilizing the demand growth exclusion must provide adequate documentation that any exclusions are legitimately related to demand growth unrelated to the modification, or risk enforcement action. Also note that demand growth can only be excluded to the extent that the physical or operational change is unrelated to the emissions increases: even if the operation of an emissions unit to meet demand could have been accomplished during the representative baseline period, but the increase is related to the change, then the emissions increases resulting from the increased operation must be attributed to the modification and should not be excluded from the projected post-change actual emissions.

2. **SUBJECT**: Causal connection between NSR changes and emissions increases.

**COMMENTER**: Alliant, Dominion, DuPont, Giant, MeadWestvaco, Phillip Morris, Smurfit-Stone, Virginia Manufacturers Association (VMA)

**TEXT**: The federal and Virginia major NSR programs are mandated by the Clean Air Act. The Act requires NSR for any "modification" of a major stationary source of regulated air pollutants, and defines "modification," in § 111(a)(4), as "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by the source or which results in the emission of any air pollutant not previously emitted." This definition makes it clear that in order for there to be a "modification" of a source, the physical or operational change must cause the emissions increase--"which increases" and "which results in." Without question, emission increases following a physical or operational change to a source that are not caused by that change cannot be considered in determining whether that change would be a "modification."

Until it promulgated the final federal NSR reform regulations, EPA was slow to acknowledge the causation requirement in the definition of "modification" in the Act. EPA clearly did so because acknowledging the causation requirement would have forced the agency to abandon its use of the past-actual-to-future-potential-emissions test for an emissions increase following a physical or operational change to a source. Starting with the Wisconsin Electric Power Corporation (WEPCO) decision, courts that have considered this test have ruled its use is illegal in instances where changes are proposed to existing facilities. The reason is simple: a source's potential to emit includes all possible emission increases at a source following a physical or operational change regardless of whether that change causes the increase. This violates the causation requirement in the Clean Air Act.

Following the WEPCO decision, EPA recognized the causation problem in applying the potential to emit test for modifications. In 1992 EPA adopted NSR regulations for EGUs that switched from the past-actual-to-future-potential test to a past-actual-to-representative-actual test. The definition of "representative actual annual emissions" (which are compared to the past actual emissions prior to the source change) specifically excluded emissions unrelated to the change, e.g., increases attributable to demand growth. Thus, the electric utility industry has had the demand growth exclusion under federal law since 1992.

EPA recognized the pervasive problems with its NSR regulations, including the illegal use of the past-actual-to-future-potential test for determining whether a physical or operational change is a modification. This prompted the agency in 1992 to undertake the NSR reforms. In the long process leading up to promulgation of the final federal NSR reform regulations, EPA considered

whether to include the demand growth exclusion for all sources, not just EGUs, in the federal regulations. EPA noted "there were problems that could arise with the demand growth exclusion" and the agency solicited comment on it.

In adopting the final NSR reform regulations, EPA retained the demand growth exclusion. EPA did so with the explicit recognition "that the statute and implementing regulations indicate that there should be a causal link between the proposed change and any post-change increase in emissions." EPA further focused the demand growth issue on whether emission increases from increased plant capacity utilization should be included in determining the post-change emission increase. EPA answered that question definitively: "As explained earlier, the CAA only applies the major NSR requirements to emissions increases that are the result of a physical or operational change. Thus, we do not believe that the major NSR requirements should apply to a utilization increase unless the increase is related to the modification."

Like the federal NSR reform regulations, the Virginia regulations the board adopted at its December 2005 meeting define "major modification" in relevant part as "any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase of a regulated pollutant . . .". Thus, the Virginia NSR regulations embody the causation requirement in the Clean Air Act, which mandates those regulations, and in the federal regulations, which the Virginia regulations mirror.

An example: Consider a facility that historically operated at 85% of its productive capacity, but expects demand for its products to grow in the near future. This growth in product demand will take plant utilization up to 95% of capacity. Assume this increase in capacity utilization results in a "significant" increase in emissions (as defined by the major NSR regulations). NSR places no restraint on the owner to increase capacity utilization under these circumstances.

Now add at this point in time the fact that the source owner wants to install a new piece of equipment to make a new type of product. The addition of this piece of equipment would cause emissions from the facility to increase by somewhat less than the NSR significance level. However, the NSR applicability calculus calls for a determination of the projected actual emissions from the facility after "the change," i.e., after installation of the new piece of equipment. Because of the increased capacity utilization, the source's emissions within five years after the new equipment installation are projected to increase by a significant amount. Absent the demand growth exclusion, the installation of the new piece of equipment would trigger major NSR, notwithstanding that the emission increase caused by the new equipment itself is less than the NSR significance level. This outcome violates the causation requirement and is illegal.

The illegal outcome in the foregoing example is not rectified by providing the source owner with an opportunity to try to convince DEQ that a past actual emissions baseline outside the normal 5-year lookback period is more representative of normal source operations. The baseline has nothing to do with future productive capacity. Say, for example, looking outside the past 5-year period allowed the source owner to set past actual emissions using a plant capacity utilization of 90%, rather than 85% as in the previous example. Would this alleviate the problem? If the increase in sourcewide emissions going up from 90% to 95% utilization exceeds the NSR significance level, the installation of the new equipment would still illegally trigger NSR, absent the demand growth exclusion. The important point is that any increase in emissions, regardless of the past actual emissions baseline, that does not result from "the change" cannot be included in determining the emissions impact of "the change."

In sum, causation is an inextricable part of Virginia's NSR regulations. A definition of "projected actual emissions" lacking the demand growth exclusion would violate the causation requirement. Thus, a definition of "projected actual emissions" lacking a demand growth exclusion is illegal.

**RESPONSE:** The commenters correctly state that the Clean Air Act and the federal regulations require that a modification must be linked to a change in order for new source review to apply. EPA also intentionally revised the NSR rules to explicitly allow non-EGUs to determine their projected actual emissions in the same manner as EGUs. Additionally, the state can still impose minor NSR permitting, including BACT, should emission levels warrant it. This will adequately safeguard the environment while allowing sources to respond to changes in product demand, including the installation of more efficient and less-polluting equipment.

We disagree with the commenters that states are not allowed to revise their SIPs or regulations. Section 116 of the Clean Air Act states:

. . . nothing in this Act shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution; except that if an emission standard or limitation is in effect under an applicable implementation plan or under § 111 or 112, such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section.

To briefly summarize 40 CFR 51.101:

Nothing in this part will be construed in any manner: . . . to encourage a State to prepare, adopt, or submit a plan which does not provide for the protection and enhancement of air quality so as to promote the public health and welfare and productive capacity . . .to preclude a State from employing techniques other than those specified in this part for purposes of estimating air quality or demonstrating the adequacy of a control strategy, provided that such other techniques are shown to be adequate and appropriate for such purposes . . . to preclude a State from preparing, adopting, or submitting a plan which provides for attainment and maintenance of a national standard through the application of a control strategy not specifically identified or described in this part . . .to preclude a State . . . from adopting or enforcing any emission limitations or other measures or combinations thereof to attain and maintain air quality better than that required by a national standard.

In the preamble (67 FR 80240, December 31, 2002) to the final federal NSR regulation, EPA states:

. . . State and local jurisdictions have significant freedom to customize their NSR programs. Ever since our current NSR regulations were adopted in 1980, we have taken the position that States may meet the requirements of part 51 "with different but equivalent regulations." 45 FR 52676. Several States have, indeed, implemented programs that work every bit as well as our own base programs, yet depart substantially from the basic framework established in our rules. . . . we have not implemented our base programs with a one-size-fits-all mentality and certainly do not have the goal of "preempting" State creativity or innovation.

In the text of the final federal NSR regulations (§§ 40 CFR 51.165 and 40 CFR 51.166), EPA provides additional specifics on this matter:

With regard to those provisions relating to definitions; relating to the determinations of significant emissions increases and significant net emissions; and relating to circumstances where there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase, EPA indicates that deviations from these provisions will be approved only if the State specifically demonstrates that the submitted provisions are more stringent than or at least as stringent in all respects as the corresponding federal provisions.

Therefore, there is nothing illegal about the state exercising its discretion under federal law and regulation to make changes to a federal program that are more protective of the environment.

The commenters correctly note that in the preamble to the final NSR rules, EPA stated that the demand growth exclusion was included in the final rules because there should be a causal link between the proposed change and any post-change increase in emissions. However, EPA continues, “On the other hand, demand growth can only be excluded to the extent that the physical or operational change **is not related to the emissions increase.**” [Emphasis ours.] It is in making this distinction that there is serious concern about how to implement a demand growth exemption.

The Clean Air Act and Code of Federal Regulations allow states to implement rules that are more protective than federal rules, and the EPA rules on which the state NSR rules are based explicitly allow states discretion in how the program is implemented. As long as the base elements of the program are included, states are allowed to tailor the federal rules to meet state needs. If EPA had intended for the reform rules to be adopted by the states in precisely the form they were issued, EPA would have written them as standards, or issued a SIP call, and the states would have simply incorporated the rules without change. The baseline elements of the EPA program are included in the Virginia regulation; however, the state has also exercised its discretion to make modifications to the baseline in order to meet state needs.

Finally, if, as the commenters state, the past-actual-to-future-potential test is illegal, then it is unclear why EPA included it as an option for sources to undertake in the reform provisions, and why the commenters did not object to its inclusion during any of the three comment periods on the state rules.

As discussed in the response to comment 1, we agree that the demand growth exclusion is a necessary component of projected actual emissions and have therefore restored it to the regulations, with the addition of some language to clarify the intent of the provision and ensure consistency in its application. As long as sources meet the recording, recordkeeping, and notification requirements in their demonstrations that the demand growth being excluded is not related to the emissions increase, then it is reasonable that the sources should be allowed to use this exclusion.

3. **SUBJECT:** Public participation.

**COMMENTER:** Dominion, DuPont, Giant, MeadWestvaco, Phillip Morris, Smurfit-Stone, VMA

**TEXT:** The board eliminated the demand growth exclusion from the final NSR reform regulations as a result of a board member's motion literally minutes before the board voted to adopt the final regulations. While there was a limited opportunity for oral comment by selected persons in attendance at that meeting, a majority of the board decided to make this drastic and far-reaching change without sufficient public input.

In the public comment period on the proposed NSR reform regulations, DEQ solicited comment on whether the demand growth exclusion should be retained in the final regulations. VMA commented affirmatively and the Southern Environmental Law Center (SELC) commented negatively. VMA's comments noted it is imperative to retain the demand growth exclusion because of the causation requirement. In its comments, the SELC maintained, without any supporting evidence, that the demand growth exclusion provides no benefit for NSR enforcement and would guarantee massive, unregulated increases in pollution. DEQ considered these comments and recommended to the board NSR reform regulations containing the demand growth exclusion.

Virginia law requires that agencies make decisions supported by substantial evidence in the record. The board's last minute decision to eliminate the demand growth exclusion was based on nothing more than one cursory and unsubstantiated written comment and the impromptu oral comments of a couple of attendees minutes prior to the board's vote. Moreover, the board's vote ran directly counter to DEQ's recommendation. The rulemaking record is devoid of any substantial support for the board's deletion of the demand growth exclusion.

**RESPONSE:** DEQ's recommendation to the board is advice, not a binding requirement. As discussed in the response to comment 7, the Administrative Process Act allows for a new public comment period if the board makes substantial changes to a regulation between the proposed and final versions; this current comment period is in response to state code requirements, which are intended to address this very situation.

4. **SUBJECT:** Stringency, flexibility and competitiveness.

**COMMENTER:** AEP, Alliant, Dominion, DuPont, Ford, Giant, Greif, MeadWestvaco, Phillip Morris, Smurfit-Stone, VMA

**TEXT:** The NSR reform regulations the board adopted are already considerably more stringent than the federal regulations and NSR regulations in most other states, particularly those states against which Virginia competes for business. To the commenters' knowledge, no other state or local authority has adopted or intends to adopt NSR reform regulations without the demand growth exclusion. Previous comments on the proposed regulations discussed the phenomenon of NSR "capacity confiscation," which arose from the past-actual-to-future-potential test for an emissions increase resulting from a source change. The commenters advocated a 10-year lookback for determining past actual emissions and the use of projected actual emissions, with the demand growth exclusion, to alleviate capacity confiscation.

The board, nevertheless, adopted a 5-year lookback period and then also stripped the demand growth from the definition of projected actual emissions. One board member offered an amendment to the regulations, adopted by a majority of board members, that would allow a source owner the possibility of using a 24-month period outside the presumptive 5-year lookback period to set the source's past actual emission baseline. The owner could make a

case that another period with higher emissions rates was more representative of normal source operations and, therefore, should serve as the baseline period for determining past actual emissions. Presumably this opportunity was intended as a way to alleviate capacity confiscation. Unfortunately, it would not.

A facility owner ought to be able to use the existing productive capacity of the facility to its fullest. It would be economically wasteful to prohibit a facility owner from fully utilizing productive capacity no matter how much higher it is compared to any historical utilization rate. Moreover, the Clean Air Act simply does not support such a prohibition through the NSR program, no matter what the air emissions impact would be. (As discussed elsewhere, the Act authorizes and mandates many other programs besides NSR that address sourcewide emissions no matter how they arise, even by increased utilization of existing productive capacity.)

In today's fast-paced global marketplace, Virginia's facilities compete constantly with their own company's and their competitors' facilities in other states and throughout the world. The marketplace favors the quick and nimble business. When the opportunity to quickly fill a new or increased demand for a product arises, the business goes to the company's facility or a competitor's facility that can respond the fastest to the demand. A facility in Virginia that is prohibited from increased production because of capacity confiscation due to the absence of the demand growth exclusion will lose the opportunity for increased jobs, revenues, facility stability, and a host of other economic benefits that come with being the company's "go-to" facility.

**RESPONSE:** The statement that Virginia's NSR rules are among the most stringent in the country is erroneous. The Region III states of Maryland and Delaware are in the process of developing state rules that include the federal reform provisions as a framework but exclude demand growth. A number of states are submitting equivalency demonstrations for state rules that do not include any of the NSR reform provisions, let alone demand growth. Throughout the country, including the southeast states of North Carolina, South Carolina, Georgia, Alabama, Florida, Louisiana, and Tennessee, many states have made or are making changes to the baseline federal program in their state rules other than demand growth that are often significant departures from the baseline federal program. Therefore, Virginia's rules are well within the mainstream of national state activities.

Because there is no consistent application of the federal rules by the states, there is no particular advantage or disadvantage to a source locating in a state that elects to make state-specific changes. As discussed elsewhere, federal law and regulation allow states to change the program; Virginia regulations have been tailored to incorporate the beneficial aspects of the federal rules while protecting Virginia's air quality.

While it may, in theory, be economically wasteful to prohibit full utilization of production capacity, the detriment to public health and the environment from unacceptably high levels of air pollution would contravene this use. No owner has the right to emit any amount of pollution simply because they have the physical capability of doing so. We agree with the commenters that a source should be allowed to use its productive capacity to the fullest; however, this must be achieved without endangering the health and welfare of the citizens of the Commonwealth. The commenters mischaracterize the purpose of the Clean Air Act when they state that the Act does not support prohibition of full capacity utilization: if this were the case, then no source would ever have to install additional air pollution control equipment or otherwise limit operations in

response to a nonattainment situation, or when a new emissions standard is adopted. Nothing in the Act entitles a source to permanently operate at full capacity.

The purpose of NSR is for states to control emissions increases from new sources and modifications. The baseline federal rules are merely the starting point, and states have the right and the obligation to assess emissions increases in the specific context of the state's particular air quality needs. NSR is inherently case-by-case, with the final decision as to how much additional air pollution is acceptable resting with the state—not the source.

5. **SUBJECT:** Maintaining Virginia's air quality.

**COMMENTER:** Alliant, Dominion, DuPont, Giant, MeadWestvaco, Phillip Morris, Smurfit-Stone, VMA

**TEXT:** EPA has stated: "Major NSR is not a measure to reduce emissions to assure attainment." It's clear that the purpose of the PSD program is not to reduce emissions, but to limit new emissions so as to prevent significant deterioration of air quality in the attainment areas. As for nonattainment NSR, EPA explains: "The major NSR program's purpose 'is to permit States to allow continued growth or expansion in nonattainment areas, so long as this growth or expansion is undertaken in a manner consistent with the goals and objectives of the Clean Air Act.'" In short, NSR is not a program designed to reduce emissions to improve air quality.

EPA has adopted a host of federal programs, applicable in Virginia, that are specifically designed to reduce emissions to improve air quality. These programs address the air quality concerns DEQ cites in the preamble to the proposed regulations. These programs mandate massive emission reductions from both new and existing sources. Prime examples are the federal Acid Rain Program, the NO<sub>x</sub> SIP Call, the Regional Haze Program, and the Clean Air Interstate Rule (CAIR). The Acid Rain Program, which applies to large coal-fired electric generating units, has resulted in huge decreases in emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) and dramatically improved air quality nationwide. To further reduce emissions of NO<sub>x</sub>, one of the principal precursors to the formation of atmospheric ozone, in the East, EPA promulgated the NO<sub>x</sub> SIP Call. In conformance with the NO<sub>x</sub> SIP call, the board adopted the NO<sub>x</sub> Budget Trading Program, which requires Virginia sources to make massive additional reductions of NO<sub>x</sub> emissions. The federal Regional Haze Program is designed to implement the mandate of the Clean Air Act to restore and enhance visibility in our Class I areas. Virginia must develop regulations to require best available retrofit technology at sources that are interfering with visibility in Class I areas.

In addition to the Acid Rain Program, the NO<sub>x</sub> Budget Trading Program, and the Regional Haze Program, Virginia and 27 neighboring states must soon adopt regulations to meet the requirements of the federal CAIR. DEQ has already begun this rulemaking process. CAIR will result in further, deep cuts in emissions from new and existing sources in Virginia and neighboring states. In sum, EPA and Virginia already have several key emission control programs specifically designed to address ozone nonattainment, visibility, and acid deposition through massive reductions in NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>2.5</sub>, and other emissions from both new and existing sources.

These emission reduction programs are clearly working well. For example, EPA notes that NO<sub>x</sub> emissions are 50% lower now than in 2000 before the NO<sub>x</sub> SIP Call was implemented, resulting

in significant reductions in ozone concentrations in the Eastern U.S. EPA expects even further reductions as the CAIR and new mobile source emission control programs are implemented.

The history of emissions from the electric utility sector provides a clear illustration that these federal and state emission reduction programs are working. For example: nationwide electricity demand has increased dramatically since 1980, but emissions from coal-fired utility plants have decreased dramatically. This is obvious even since 1992 when EPA adopted the demand growth exclusion for the electric utility industry. While much of these decreases may be attributed to technological improvements in the efficiency of electricity generation, a large portion of these decreases are directly attributable to programs like the Acid Rain Program and NO<sub>x</sub> SIP Call. CAIR is expected to result in further drastic emission reductions in the near future. In the face of these comprehensive federal and state emission reduction programs, stripping the demand growth exclusion from Virginia's NSR reform regulations is misguided, unwarranted, and unnecessary.

**RESPONSE:** The commenters correctly state that the purpose of the NSR program is not to reduce emissions, but to limit new emissions so as to prevent significant deterioration of air quality in the attainment areas or contribute to nonattainment in nonattainment areas. The commenters incorrectly assume, however, that the state is under no obligation to take additional measures beyond the specifics mandated by federal law and regulation in order to protect public health and welfare.

As the commenters state, in quoting EPA: “The NSR program is to permit states to allow continued industrial growth **so long as this growth or expansion is undertaken in a manner consistent with the goals and objectives of the Clean Air Act.**” (Emphasis added.) The changes to Virginia’s NSR program are intended to implement the federal NSR reform provisions while ensuring that Virginia can meet the overall goals and objectives of the Clean Air Act. Virginia is in the process of implementing the EPA measures enumerated by the commenters, and these programs will indeed contribute to improvements in air quality. § 10.1-1308 of the Code of Virginia states, “The regulations shall not promote or encourage any substantial degradation of present air quality in any air basin or region which has an air quality superior to that stipulated in the regulations.” As discussed elsewhere, the uncertainty of specific impacts associated with implementing the federal NSR rules suggests that certain limitations on some aspects of the federal rules may contribute toward meeting state-specific PSD, maintenance, and nonattainment needs.

While it is true that Virginia’s air quality is improving, in part due to federal and state rules governing utility and other industrial sources, it is also true that there continues to be room for improvement in Virginia’s air quality. The continuing existence of an ozone nonattainment area, and the recent designation of a PM<sub>2.5</sub> nonattainment area, for example, suggests that additional steps are needed in order to continue adequately protect public health and welfare.

6. **SUBJECT:** Clarity and regulatory intent.

**COMMENTER:** Ford

**TEXT:** In the definition of “projected actual emissions,” the federal rules clarified that emissions unrelated to the project being permitted should not be included in determining whether major NSR is triggered. EPA has more clearly defined what is meant by an actual emissions increase under NSR in order to properly determine whether major NSR applies to a

new project. Prior to the NSR reforms, when companies planned to install a new source or modify an existing source at a facility having many different existing permitted sources (some related and some unrelated or operationally independent of one another), they would have to evaluate the emissions difference (past-actual to-future potential) of that change. Potential was always defined as operating 8760 hours per year unless other factors or restrictions (e.g., synthetic minor permitting) were appropriate. However, only the emissions from those sources directly involved and affected by the change would be evaluated for determining NSR applicability.

Under the reform rules, EPA adopted the past-actual-to-future-actual test that more appropriately addresses the cyclic nature of industries like ours and has clarified that unrelated emissions continue to be excluded from consideration of major NSR. The reference to “any increased utilization due to product demand growth” in the definition of “projected actual emissions” is merely an example of what could be considered unrelated to the project. Such clarity is needed. To eliminate this exclusion from the definition, would suggest that unrelated emissions associated with other emission units -- including those completely independent and unassociated with the changed emission unit -- should be included in determining major NSR applicability. This would be an inappropriate and hopefully is a potential unintended consequence of removing the clause. Otherwise, every change contemplated at the major source could effectively trigger major NSR because one would have to aggregate emission differences between the actual emission level and permitted emission level of every emission unit located at the facility. (It is likely that most, if not all, major Virginia facilities operate their existing emission units--at least in total--well below the significant source threshold levels.) Thus, in nonattainment areas, companies would be required to continually re-net or re-offset their emissions associated with both related and unrelated existing emission units just to retain current permitted capacities.

**RESPONSE:** We agree with the commenter that the additional clarity provided by the demand growth exclusion language is needed, and, as discussed in the response to comment 1, have reinstated it, with the addition of some language to clarify the intent of the provision and ensure consistency in its application.

7. **SUBJECT:** Stringency; justification of changes.

**COMMENTER:** Dominion

**TEXT:** For regulations more stringent than federal requirements, the Code of Virginia obligates the board to justify its need for additional reductions, and support that justification by substantial evidence. It has provided none. The decisionmaking record in this case has no discussion of controls such as the NO<sub>x</sub> SIP Call or CAIR. Furthermore, there is no assessment of the economic or other impacts of what amounts to a widespread application of BACT to sources simply based on size (since size will largely determine whether significance levels will readily be tripped in response to relatively small but predictable increases in demand). The Department of Planning and Budget (DPB) economic impact analysis for the NSR proposal endorsed the federal NSR reforms. This revised NSR proposal should be submitted to DPB so that it can evaluate the economic impact of the proposed changes. The board has provided no basis from which to conclude that NSR was ever intended to be, or should be, converted into a stronger emissions reduction program through removal of the demand growth exclusion.

**RESPONSE:** § 10.1-1308 A of the Code of Virginia states, “The board, after having studied air pollution in the various areas of the Commonwealth, its causes, prevention, control and abatement, shall have the power to promulgate regulations, including emergency regulations, abating, controlling and prohibiting air pollution throughout or in any part of the Commonwealth in accordance with the provisions of the Administrative Process Act (§ 2.2-4000 et seq.), except that a description of provisions of any proposed regulation which are more restrictive than applicable federal requirements, together with the reason why the more restrictive provisions are needed, shall be provided to the standing committee of each house of the General Assembly to which matters relating to the content of the regulation are most properly referable.” On March 1, 2006, this notification was provided to the Senate Agriculture, Conservation and Natural Resources Committee and the House of Delegates Agriculture, Chesapeake and Natural Resources Committee.

In order to meet the federal SIP submittal deadline, DEQ requested a waiver from executive review of the final regulations as approved by the board. This waiver request was submitted to and approved by the Secretary of Natural Resources and the Office of the Governor. Approval of this waiver by the executive branch affirms DEQ’s view that the final regulations did not require additional executive branch review, which includes final DPB review. Note that the original DPB review relied heavily on EPA’s regulatory analysis, which has been subject to considerable criticism for its lack of data. (A General Accounting Office report, for instance, commented on EPA’s lack of comprehensive data and unverified assumptions; the court that upheld certain provisions of NSR reforms also reiterated that the data on which EPA’s analysis relied was inadequate.) Note that the voluntary, case-by-case nature of the reform provisions—the demand growth provisions, in particular—would make it difficult for DPB to obtain enough new, quantifiable data to perform any kind of meaningful economic analysis other than a very general review.

Section 2.2-4007 K of the Administrative Process Act allows for at least 25 persons to request an opportunity to submit oral and written comments on the changes to the proposed regulation. Because of the substantive nature of the changes and the requests from petitioners, the board reopened the regulation for additional public comment on those changes. This response to public comment was prepared as part of the new public participation period. The additional comment period is the opportunity for the commenter to provide additional information for the board to consider regarding changes they made between the proposed and final versions of the regulations.

DEQ and the board have, therefore, fulfilled all public comment and notification requirements required by state law.

8. **SUBJECT:** Appeals court ruling.

**COMMENTER:** Dominion

**TEXT:** In a June 24, 2005 decision, the DC District Court of Appeals upheld the demand growth exclusion of the past-actual-to-future-projected-actual emissions calculation for determining NSR applicability and specifically rejected the petitioners’ arguments that “EPA arbitrarily and capriciously changed its position regarding the exclusion’s benefits.” The objecting states claimed that in the final NSR rule of 2002 EPA failed to address the agency’s 1998 tentative conclusion in the Notice of Availability that the demand growth exclusion was not appropriate. The court held that EPA had addressed this conclusion.

**RESPONSE:** The court decision vacated the Clean Unit and PCP provisions while upholding the remaining NSR reform provisions. In light of the court's rejection of the Clean Unit and PCP provisions (on which EPA relied in concluding that the five NSR reform provisions will improve air quality), the court recognized that there is a heightened need for EPA to have sufficient data to confirm that the remaining portions of the reform rule do not result in increased emissions that harm air quality and public health.

The court concluded that although the data on which it relied was inadequate, EPA's agency decision to promulgate the NSR reforms was not arbitrary and capricious. The court, therefore, upheld the remaining NSR reform provisions: even though the basis for the provisions was faulty, the agency was not held liable for choosing to promulgate those provisions. However, the concern at the state level--where the rules must be implemented--is not whether EPA acted in a legally proper way or not, but rather whether the information on which EPA's rules are based is adequate. The court decision in no way affects the states' ability to tailor federal regulations to meet state environmental needs.

9. **SUBJECT:** NSR reform case intervention.

**COMMENTER:** Dominion

**TEXT:** A group of 9 states, including Virginia, intervened in the NSR reform case and fully supported EPA's inclusion of the demand growth provision. DEQ does not explain why its support of EPA in that case was incorrect. If the board should eliminate the provision, it is important that DEQ explain why it no longer supports the position it took before the Court of Appeals.

**RESPONSE:** The assertion that DEQ intervened on EPA's behalf during the appeal is incorrect: DEQ never supported EPA in that case, and was never party to the appeal. The Office of the Attorney General entered the litigation without participation from the Executive Branch, including the Secretariat of Natural Resources. Positions expressed in that litigation therefore do not represent the views of the board or DEQ.

10. **SUBJECT:** Environmentally beneficial projects.

**COMMENTER:** Smurfit-Stone

**TEXT:** If the final rule eliminates the demand growth exclusion, this might largely undo the intended benefits of going to an actual-to-projected-actual test. Eliminating the flexibility provided by this exclusion will have a serious adverse impact on manufacturing facilities in Virginia. It may also have unintended, yet equally severe, impacts on Virginia citizens employed by manufacturers, as well as many businesses that service the Commonwealth's manufacturers (e.g., electrical, mechanical and other contractors). Moreover, by limiting the ability of major sources to make efficiency and other improvements that would reduce emissions, the deletion is likely to prevent projects that would improve the environment. Thus, it would create the same disincentives to environmentally beneficial projects that EPA concluded was a major failing of the actual-to-potential test for major NSR applicability. In its environmental impact analysis of the federal rules, EPA stated:

Many commenters who have addressed NSR over the last ten years have presented evidence of planned projects that would have decreased actual emissions but would have triggered NSR because of the actual-to-potential test. . .

One recent example . . . concerned the installation of a heat exchanger on a boiler flue gas stream. The heat exchanger would use the hot flue gas to preheat water for later use, meaning less fuel would need to be consumed to heat that water. Currently, without the heat exchanger, the heat in the flue gas is just wasted. However, because the boiler has permitted (potential) emissions much higher than current actuals, the change would trigger NSR, which would introduce delays and control requirements that make the project cost prohibitive. To avoid NSR, the source could agree to lower these permitted emissions to actual levels, but this is also cost-prohibitive, because in order to do so, it determined that it would have to surrender its ability, currently authorized by the permitted, to use oil as a backup fuel. . . .

In addition to barriers to environmentally beneficial projects imposed by the actual-to-potential test, this test also creates an incentive to keep emissions higher than a source otherwise would, all other things being equal.

One of the comments in support of EPA's environmental analysis of the actual-to-projected-actual test noted that "numerous facilities in Virginia have abandoned projects that would have decreased emissions because the past-actual-to-future-potential test artificially indicated that the project would result in a significant emissions increase." Elimination of the demand growth exclusion would introduce the same dilemma and restrict improvements that would reduce fossil fuel use and emissions.

**RESPONSE:** We acknowledge that the previous NSR rules created a disincentive for implementing certain environmentally beneficial projects, which is why the board adopted most of the NSR reforms without change. The changes made to the EPA baseline rules are intended to provide additional environmental protection while enabling sources to take advantage of the reforms.

### **Demand Growth: Specific Industry Issues**

11. **SUBJECT:** Demand growth issues, electric utility industry.

**COMMENTER:** Appalachian Power on behalf of American Electric Power (AEP)

**TEXT:** The exclusion of emission increases that could be accommodated and are unrelated to the project, including demand growth, from projected actual emissions is very important to the electric utility industry. Electric utility industry output is directly dependent on the demand of the customers. The electric utility industry is one of the very few industries where the end product is utilized at the same time the product is produced. The industry has designed and installed the generating facilities to attempt to stay ahead of demand. If the industry did not over-design the generating facilities, customer electricity use would exceed generation and transmission capacity and cause brown-outs and black-outs. As such, the equipment has been designed with enough capacity to generate electricity when needed. The baseline capacity of the emission unit will generally be less than the design capability of the unit.

The federal rules regarding PSD and nonattainment NSR allow the exclusion of the emissions from the baseline period that the unit was capable of accommodating. This exclusion was first provided in the WEPCO decision. The exclusion was specific to electric utilities until it was recently codified for both electric generating emission units and other emission units. Further, in the WEPCO rule, EPA clarified its regulations, as applied to electric utility steam generating units, to “. . . that portion of the unit’s emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change. . . .” The regulations contemplate that in comparing pre- and post-project emissions and examining causation, a utility may exclude that portion of the pre-project emissions that could have been accommodated by the unit. In the construct of the actual-to-future-actual test, these are the emissions that the unit could accommodate. It is important to recognize that the emissions the unit was capable of accommodating are not potential emissions. Potential emissions represent the emissions the unit could have emitted in the period of interest if the unit ran at its full rated capacity in every hour of the period.

The use of electricity has been growing steadily. This growth is periodically projected in filings for energy product and budget considerations. For Appalachian Power, the system growth is part of the greater consolidated service area of the AEP system. Fulfilling the demand caused by this growth is usually within the capability of the existing units. When the short-term demand is greater than the capability of the existing units, electricity is purchased from another utility having a surplus of generating capacity. The company will make decisions regarding installing additional generating capacity based on the existing capacity and the costs of purchased power from neighboring utilities. The growth of electricity demand can be as high as several percent per year. At this rate and based on the size of the generating facility emission units, the annual NSR thresholds may be triggered in comparing past-actual-to-projected-actual tests through nothing more than the increased demand for electricity in the market and increased operating capacity on the unit. The emissions caused by a project may not increase the emissions on a short term basis, but because the generation is driven directly by the system demand, the facility operates for more hours or a slightly higher capacity factor to result in higher annual emissions.

Maintaining this exclusion makes sense from several perspectives. First, a source is limited by the lesser of (a) its permit limit or (b) the emissions the source could have accommodated (achieved) in the baseline period. Increased operations (and resultant increases in actual emissions) that could not physically and legally be accommodated during the representative baseline period but for the proposed physical or operational change should be considered to result from the change. Second, the “capable of accommodating” standard is easily calculable by the permitting agencies. Clearly, it would be impractical for the EPA to require reviewing authorities to conduct complicated causation analysis to attempt to identify the emissions caused by extrinsic factors and the emissions caused by a project. Rather, it is more logical that the EPA established an objective standard easily calculable by utilities and the reviewing authorities that determines whether the anticipated emissions exceed the emissions the source was capable of accommodating in the baseline period that are unrelated to the physical or operational change. In calculating the demand growth, utilities may consider the company’s historical operational data, its own representations, filings with the federal, state or local regulatory authorities, and compliance plans developed under title IV of the 1990 amendments. Third, the capable of accommodating level is nothing more than what the owner of the facility would have been able to emit from the unit but for sufficient demand. Where increased operations are in response to independent factors, such as systemwide growth, which would

have occurred and affected the unit's operation even in the absence of the physical change and shall be excluded from the projection of future actual emissions. In other words, the capable of accommodating emissions represent the emissions the unit could have emitted in the baseline period had all of its availability been utilized.

**RESPONSE:** As discussed in the response to comment 1, the demand growth exemption has been restored to the regulations, with the addition of some language to clarify the intent of the provision and ensure consistency in its application. Note that no changes have been made to the recordkeeping, reporting, and notification requirements found in the regulations. Sources utilizing the demand growth exclusion must provide adequate documentation that any exclusions are legitimately related to demand growth unrelated to the modification or risk enforcement action.

12. **SUBJECT:** Demand growth issues, electric utility industry.

**COMMENTER:** Dominion

**TEXT:** The demand growth exclusion is very important to the electric utility industry. The demand for electricity has been growing steadily: U.S. demand for electric power has been increasing at a rate of 2-3% per year, while the demand for power in Virginia has increased at a rate of 2.7% per year over the last 5 years, commensurate with a significant increase in population over the same time period. The electric utility industry output is directly dependent on the demand of its customers. The industry has designed and installed generating facilities with enough capacity to generate electricity when needed in order to stay ahead of demand. As such, the normal baseline operation of an emissions unit will generally be less than the design capability of the unit. In other words, these units are capable of accommodating increased capacity levels (that is, operating for more hours or a slightly higher capacity factor) and subsequent annual emissions increases associated with meeting electricity demand growth.

Withdrawal of the demand growth exclusion will restrict the emissions increase prong of the NSR two-prong test for modifications. With the demand growth rates noted above and the general size of electric generating units in Virginia, the annual NSR thresholds may be triggered in comparing past-actual-to-projected-actual-tests through nothing more than the increased demand for electricity in the market and increased operating capacity on the unit. Thus, elimination of the demand growth exclusion largely makes application of NSR inevitable for every existing major source above certain size thresholds. For example, if a source's emissions increase by 1% per year over the 5-year post-change period, all sources emitting 800 tons per year will trip the NO<sub>x</sub> and SO<sub>x</sub> significance levels. As noted earlier, demand for power is increasing at rates in excess of population growth.

The practical effect of eliminating demand growth is to automatically make an identifiable minimum group of sources (generally those emitting over 350 tons per year of NO<sub>x</sub> or SO<sub>x</sub>) guaranteed to trip the emissions increase prong of the NSR modification test, regardless of the reasons for the emissions increase.

**RESPONSE:** As discussed in the responses to comment 1, the demand growth exemption has been restored to the regulations, with the addition of some language to clarify the intent of the provision and ensure consistency in its application. Note that no changes have been made to the recordkeeping, reporting, and notification requirements found in the regulations. Sources utilizing the demand growth exclusion must provide adequate

documentation that any exclusions are legitimately related to demand growth unrelated to the modification or risk enforcement action.

13. **SUBJECT:** Demand growth issues, electric utility industry.

**COMMENTER:** Dominion

**TEXT:** Attaining and maintaining the NAAQS is not a legitimate basis to create an additional emission reduction program by removing the demand growth exclusion. Emission sources that would be forced to obtain permits and install BACT without the demand growth exclusion are the very same industrial and electric generating sources whose emissions are already capped under the ozone season NO<sub>x</sub> SIP Call and will be subject to annual SO<sub>2</sub> and NO<sub>x</sub> caps (and a reduced ozone season NO<sub>x</sub> cap) under CAIR. Since all EGUs are specifically covered by annual caps for NO<sub>x</sub> and SO<sub>x</sub>, there is no plausible basis to apply BACT reductions to any of these units individually. Consequently, there is no substantial evidence that supports an air quality benefit for the Commonwealth as a result of elimination of the demand growth exclusion. The state has sufficient authority to address any exceptions, where individual sources are causing problems under the current SIP. EPA agrees that the NSR program is not a useful or correct way to obtain additional emission reductions.

**RESPONSE:** Whether or not a source can meet the requirements of CAIR, which requires specific emissions reductions, and those of major NSR, which is determined on a case-by-case basis, at the same time, would need to be addressed at the time of the source modification. The commenter correctly points out that they are different programs intended to address different issues. As discussed in the response to comment 4, Virginia's modifications to the EPA rules are not intended to directly attain the NAAQS; rather, they are to allow sources to utilize the NSR reforms while providing an adequate margin of air quality protection.

14. **SUBJECT:** Demand growth issues, ammunition manufacture industry.

**COMMENTER:** Alliant

**TEXT:** The production rate at the Radford Army Ammunition Plant has fluctuated over the years due to the Army's demand for propellant. This facility is continually working to improve efficiency, increase reliability, and improve product quality. Such activity is crucial to the continued viability of the facility. However, some such changes may result in small emissions increases and would be considered modifications for NSR purposes. If the facility is forced to include those emissions associated with an anticipated increase in product demand and not a result of a modification as part of the facility's actual emissions, many such projects will be subject to major NSR permitting. The facility is currently undertaking a large modernization effort to help insure the long-term viability of the facility. Concurrently, the facility is experiencing a higher demand for product. The modernization effort could be greatly delayed or discontinued if these increases associated with increased product demand are included with those actually associated with the project.

**RESPONSE:** As discussed in the response to comment 1, the demand growth exemption has been restored to the regulations, with the addition of some language to clarify the intent of the provision and ensure consistency in its application. Note that no changes have been made to the recordkeeping, reporting, and notification requirements found in the regulations. Sources utilizing the demand growth exclusion must provide adequate

documentation that any exclusions are legitimately related to demand growth unrelated to the modification or risk enforcement action.

15. **SUBJECT:** Demand growth issues, pulp and paper industry.

**COMMENTER:** Smurfit-Stone

**TEXT:** Deletion of the demand growth exclusion from the NSR regulations will have a significant negative impact on our ability to execute projects that are necessary for us to remain competitive.

Consider, as an example, a project that would increase the fuel burning efficiency of the West Point mill's primary steam generating unit, the No. 8 power boiler. This boiler burns primarily coal and fuel oil as a backup. If we were to install an improved coal feeding and air distribution system to increase the efficiency with which this boiler burns coal, it would result in no direct increase in emissions. In fact, because of the increased fuel efficiency, for any given level of steam production the boiler would burn less fuel and therefore emissions would decrease. If the demand growth exclusion is removed, a fuel efficiency improvement project like this one would likely require time-consuming and costly NSR permitting despite the fact that actual emissions would decrease.

Using SO<sub>2</sub> as an example, it is unlikely that the boiler would have emitted at or near the annual allowable permit limit of SO<sub>2</sub> during any two year period of the last five years that must be used to calculate baseline emissions. Actual emissions in each calendar year would always be lower than the permit limit to ensure compliance. Further, during any baseline period, SO<sub>2</sub> emissions might be lower than emissions in other years for a number of reasons. For example, the West Point mill is allowed to burn 1.8% sulfur coal, but during the recent period; it has not been unusual for the delivered coal to have a sulfur content of around 1.2%. Even a tenth of a percent change in the sulfur content of coal, on an annual average basis, would have a dramatic impact on SO<sub>2</sub> emissions, changing emissions by 200 tons a year. A 0.1% increase in coal sulfur content can occur naturally if the same supplier shifted mines or a different vein in the same mine.

But if the mill were to project that due to availability or costs, the sulfur content of its coal might increase by 0.1% during any one of the next five years, elimination of the demand growth exclusion would presumably mean that the emission accounting, at least for any project involving the No. 8 boiler, the mill would show a 200 ton per year increase in SO<sub>2</sub> from the boiler solely from this change in coal composition. This would be more than sufficient to trigger PSD.

Without the demand growth exclusion, unless the mill was virtually certain that it could continue to maintain the past actual lower levels of SO<sub>2</sub> emissions (i.e., that there would be no changes in fuel sulfur content or paperboard demand or any other change that might lead to increased SO<sub>2</sub> emissions) such a boiler project would have to be permitted as a major modification, even though it would not directly increase any emissions, and would in fact decrease emissions. For example, for a 10% performance improvement for the No. 8 boiler (i.e., the boiler could produce the same amount of steam using 10 percent less coal), SO<sub>2</sub> emissions from the boiler at the 2005 operating rate would be reduced by an estimated 200 tons or more a year. However, this amount would be more than offset if the coal sulfur content were to increase by only 0.1%. Hence, in order to proceed with the coal burning efficiency project, the mill could be faced with either giving up the possibility of using higher sulfur coal (at a level they are permitted to burn)

for at least five years after the project was completed, or going through major NSR for SO<sub>2</sub>. The project would also more than likely require a PSD determination and BACT analysis. Such permitting typically requires a year or more to complete at a cost of \$200,000 or more.

With the demand growth exclusion, the example project would require, at most, a minor permit modification. The project would reduce air emissions, improve air quality, reduce demand for fossil fuel, and lower the mill's operating costs, making the mill more competitive. The expenditure for the project could be approved because of all of these benefits, but the future fuel savings would fund the project.

**RESPONSE:** As discussed in the response to comment 1, the demand growth exemption has been restored to the regulations, with the addition of some language to clarify the intent of the provision and ensure consistency in its application. Note that no changes have been made to the recordkeeping, reporting, and notification requirements found in the regulations. Sources utilizing the demand growth exclusion must provide adequate documentation that any exclusions are legitimately related to demand growth unrelated to the modification or risk enforcement action.

16. **SUBJECT:** Demand growth issues, pulp and paper industry.

**COMMENTER:** Smurfit-Stone

**TEXT:** Another example: the Hopewell mill is permitted to produce 450,000 air-dry tons of virgin Kraft pulp each year. However, due to market conditions and how the company allocates production among its mills, this particular mill's actual Kraft pulp production of the last five calendar years has varied from about 330,000 to about 390,000 air-dry tons. Hence, the difference between the highest and lowest actual pulp production over the last five years has been about 60,000 tons. However, based on current fuel and raw material use, and unless offset by efficiency improvements and energy production projects, an increase in annual Kraft pulp production of about 20,000 tons would result in an increase above the significance level for CO and SO<sub>2</sub>. If the demand growth exclusion is eliminated, unless the mill were to give up for at least five years the possibility of increasing its production by more than 20,000 tons above the average for the baseline period, any physical change in the major processes at the mill might be deemed to have triggered PSD. Such a requirement, by restricting the mill's ability to improve process and energy efficiency unless it was willing to cap future production, might well produce a downward cycle where the only reductions and energy use and emissions would be those from cutting production.

**RESPONSE:** As discussed in the response to comment 1, the demand growth exemption has been restored to the regulations, with the addition of some language to clarify the intent of the provision and ensure consistency in its application. Note that no changes have been made to the recordkeeping, reporting, and notification requirements found in the regulations. Sources utilizing the demand growth exclusion must provide adequate documentation that any exclusions are legitimately related to demand growth unrelated to the modification or risk enforcement action.

17. **SUBJECT:** Interstate competitiveness, pulp and paper industry.

**COMMENTER:** Smurfit-Stone

**TEXT:** Because a number of other states are adopting the federal demand growth exclusion in their NSR regulations, including other states where the company has pulp and paper mills, eliminating the demand growth exclusion from the Virginia NSR regulations will place the West Point and Hopewell mills at a significant disadvantage for gaining approval for projects described in these comments. Improvement projects of this type would more than likely be assigned to our other mills, preventing the Virginia facilities from taking advantage of newer, more cost-effective and energy-efficient technologies that would reduce air emissions and other environmental impacts.

The West Point and Hopewell mills would also be at a disadvantage versus other pulp and paper mills in other states that could implement projects to increase fuel efficiency or make similar improvements to maintain the viability of their operations without going through major NSR. Without the ability--barring major new source permitting--to improve processes in ways that do not significantly increase emissions, our mills and other manufacturing facilities in Virginia would be at a competitive disadvantage that would increasingly limit their ability to compete and jeopardize their long-term viability.

**RESPONSE:** See the response to comment 4. There is no consistent application of the NSR reforms throughout the country, nor are the revisions made to the Virginia version of the rules much of a departure from the federal.

18. **SUBJECT:** Demand growth issues, refinery operations.

**COMMENTER:** Giant

**TEXT:** In the absence of the demand growth exclusion, any post-project increase in emissions would be assumed to contribute to projected actual emissions whether the emissions are related to the project or not. Without the exclusion, there is no practical difference between "projected actual emissions" and "potential to emit." This would require facilities to make a choice when evaluating the viability of a project that would, by itself, not cause a significant emissions increase:

- (a) Proceed with the project but obtain a permit that limits emissions to less than the significance level (by limiting throughput or another operating parameter);
- (b) Proceed with the project but risk exceeding the significance level due to unrelated causes such as increased utilization due to product demand growth;
- (c) Proceed with the project but obtain a major new source permit and install applicable controls; or
- (d) Do not proceed with the project.

Options a, b, and c include additional costs and risks that may be enough to force the facility to select option d. Option a causes the facility to unfairly forfeit capacity due to unused utilization. Option b exposes the facility to the risk that it will have to prove that the project did not require a permit. Option c causes the facility to incur significant costs and delays otherwise not justified by the project. Option d causes the facility to miss the improvement opportunity.

With the benefit of the demand growth exclusion, the facility is able to evaluate the project based on the impacts of the particular project by itself and is not constrained by impacts that are not related to the project. For many companies, the permitting implications without the exclusion would cause the company to avoid the project at the Virginia facility and make the

investment at a facility located in a state that did not delete the exclusion. Or, in the absence of another facility in which to make the investment, the company may be forced to avoid an improvement to the facility and risk being at a competitive disadvantage compared to other companies.

**RESPONSE:** As discussed in the response to comment 1, the demand growth exemption has been restored to the regulations, with the addition of some language to clarify the intent of the provision and ensure consistency in its application. Note that no changes have been made to the recordkeeping, reporting, and notification requirements found in the regulations. Sources utilizing the demand growth exclusion must provide adequate documentation that any exclusions are legitimately related to demand growth unrelated to the modification or risk enforcement action.

19. **SUBJECT:** Demand growth issues, automobile manufacture.

**COMMENTER:** Ford

**TEXT:** Ford currently operates a manufacturing facility in Virginia and operates facilities subject to the NSR program in 9 other states. State permitting programs affect our ability, costs and timing to make changes to our manufacturing facilities in order to compete, both domestically and internationally. It is also crucial, in order to remain competitive, that each of our facilities be able to manufacture at its permitted capacity, otherwise the huge investment in existing equipment and infrastructure at a given facility would be unrealized. Our industry is extremely competitive. It is also cyclic, meaning that production varies to meet customer or market demand which tends to fluctuate with the economy. Adopting requirements different from federal NSR regulations can place our facilities at a competitive disadvantage and could make the NSR program unacceptable to EPA, risking sanctions. In addition, differing requirements would make permitting in Virginia more uncertain as to outcome, costs, and whether a permit could even be issued.

**RESPONSE:** See the response to comment 4. There is no consistent application of the NSR reforms throughout the country, nor are the revisions made to the Virginia version of the rules much of a departure from the federal.

### Other Issues

20. **SUBJECT:** Hybrid test

**COMMENTER:** Ford

**TEXT:** The hybrid test should be retained as a procedure for determining whether a significant emissions increase will occur. This test combines the use of the actual-to-projected-future-actual test for existing emissions units and the actual-to-potential test for new emissions units covered under a single project. It is presumed that subdivision 6 which contained this provision consistent with the federal NSR regulations was removed because it also included an example using clean units, which were vacated by a court decision. However, this test should be retained. Removing it potentially makes the rule less stringent than the federal requirements and limits application. If containing the language regarding clean units is of concern, then the provision could be revised to exclude the clean unit example.

**RESPONSE:** The hybrid test provisions were removed in error. Therefore, this comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.

**STATE AIR POLLUTION CONTROL BOARD  
SUMMARY AND ANALYSIS OF PUBLIC TESTIMONY FOR  
PROPOSED REGULATION REVISION E03  
CONCERNING**

**MAJOR NEW SOURCE REVIEW REFORM  
(9 VAC 5 CHAPTERS 50 AND 80)**

**INTRODUCTION**

At the March 2005 meeting, the board authorized the department to promulgate for public comment a proposed regulation revision concerning major new source review (NSR) reform.

A public hearing was advertised accordingly and held in Glen Allen, Virginia on August 17, 2005 and the public comment period closed on September 12, 2005. The proposed regulation amendments subject to the hearing are summarized below followed by a summary of the public participation process and an analysis of the public testimony, along with the basis for the decision of the board.

**SUMMARY OF PROPOSED AMENDMENTS**

The proposed regulation amendments concerned provisions covering major new source review reform. A summary of the amendments follows.

The following amendments apply to Articles 8 (PSD areas) and 9 (nonattainment areas):

1. Provisions for electric utility steam generating units (EUSGUs) have been added in order for the baseline state regulations to be consistent with the baseline federal regulations.
2. Requirements for determining whether physical changes made to existing emissions units trigger major NSR requirements have been revised. Sources establishing their baseline actual emissions may now use any consecutive 24-month period during the five-year period prior to the change to determine the baseline actual emissions.
3. The method for determining if a physical or operational change will result in an emissions increase has been revised. The previous "actual-to-potential" and "actual-to-representative-actual-annual" emissions applicability tests for existing emissions units have been replaced with an "actual-to-projected-actual" applicability test.
4. Provisions for plantwide applicability limits (PALs) have been added. A PAL is a voluntary option that allows a source to manage emissions without triggering major new source review. The PAL program is based on plantwide actual emissions. If the emissions are

maintained below a plantwide actual emissions cap, then the facility may avoid major NSR permitting process when it makes alterations to the facility or individual emissions units.

5. Provisions for pollution control projects (PCPs) have been added. A PCP is an activity, set of work practices, or project at an existing emissions unit that reduces air pollution. Obtaining a PCP exclusion relieves the PCP from major NSR review.

6. Provisions for Clean Units have been added. An emissions unit qualifies as a Clean Unit, and qualifies to use the Clean Unit control technology applicability test, if it has gone through major NSR permitting review and is complying with a BACT or LAER determination that has been subject to public participation. When a source undergoes NSR review and installs a BACT or LAER technology that has undergone public comment, it may make changes to a Clean Unit without triggering an additional major NSR review.

The following amendments are limited to specific articles:

7. Article 8 has been revised in order to be consistent with other NSR regulations. This consists of (i) removing federal enforceability of certain provisions that should be enforceable by the state (toxics and odor) in order to prevent state-only terms and conditions from being designated as federally enforceable in a permit; (ii) deleting provisions covered elsewhere regarding circumvention, and reactivation and permanent shutdown; and (iii) adding provisions regarding changes to permits, administrative permit amendments, minor permit amendments, significant amendment procedures, and reopening for cause.

8. Article 6 (the minor NSR regulation) has been revised to remove provisions for PCPs that would be covered by the changes to the major NSR regulations.

9. Article 4 of 9 VAC 5 Chapter 50, which contains general requirements for new and modified stationary sources, has been revised to be consistent with the control technology provisions of Articles 8 and 9.

### **SUMMARY OF PUBLIC PARTICIPATION PROCESS**

A public hearing was held in Glen Allen, Virginia on August 17, 2005. Six persons attended the hearing, with three of those offering testimony; and seven additional written comments were received during the public comment period. As required by law, notice of this hearing was given to the public on or about July 11, 2005 in the Virginia Register and in seven major newspapers (one in each Air Quality Control Region) throughout the Commonwealth. In addition, personal notice of this hearing and the opportunity to comment was given by mail to those persons on the department's list to receive notices of proposed regulation revisions. A list of hearing attendees and the complete text or an account of each person's testimony is included in the hearing report which is on file at the department.

### **ANALYSIS OF TESTIMONY**

Below is a summary of each person's testimony and the accompanying analysis. Included is a brief statement of the subject, the identification of the commenter, the text of the comment and the board's response (analysis and action taken). Each issue is discussed in light of all of the

comments received that affect that issue. The board has reviewed the comments and developed a specific response based on its evaluation of the issue raised. The board's action is based on consideration of the overall goals and objectives of the air quality program and the intended purpose of the regulation.

1. **SUBJECT:** Determining baseline emissions and emissions increases, PALs.

**COMMENTER:** U.S. Environmental Protection Agency (EPA)

**TEXT:** In the EPA rule, the lookback period for determining past actual emissions is specified as any consecutive 24 months in the previous 10 years. The Virginia proposal uses any consecutive 24 months in the previous 5 years. In the EPA regulation, the period used for establishing each pollutant baseline can be different for each pollutant. The Virginia proposal requires that it be the same for all pollutants except where extenuating circumstances would allow use of different baseline periods. The EPA rule establishes PAL duration as 10 years; the Virginia proposal contains a 5-year duration. The EPA rule allows a different baseline period for each PAL pollutant; the Virginia proposal requires the same baseline period for all PAL pollutants unless extenuating circumstances would require use of different baseline periods. The Virginia rule also proposes additional recordkeeping requirements that go beyond the federal rules.

The EPA regulation does not specify consequences where the owner determines there is a reasonable possibility that a project that is not part of a major modification may result in a significant emissions increase and does not obtain a permit. The Virginia proposal specifies how the state will act should the owner fail to make an accurate determination. The EPA regulation requires owners to develop and maintain information to support their determination that a given project is not a part of a major modification that may result in a significant emissions increase and only requires advance notification from electric steam generating facilities. The Virginia proposal requires 30 day advance notification of the availability of the information prior to beginning actual construction of the project for all sources.

The state will need to explain or offer information to EPA describing how this proposal should be considered equivalent to the federal regulations.

To be consistent in application to all sources however, EPA recommends that the following statement be made for **all** sources with respect to advance notification: "Nothing in this subdivision shall be construed to require the owner of such a unit to obtain any determination from the board before beginning actual construction."

**RESPONSE:** EPA is requiring states to make significant changes to their major new source review (NSR) programs that will provide the regulated community with a significant economic benefit due to "the reduction in administrative costs from streamlining of the permit process and the decreased opportunity cost from delayed changes." EPA has declared that the improvements to the major NSR program will be "environmentally beneficial compared to the current program." Major NSR programs are one of the key tools state used to manage the growth of new emissions, particularly in nonattainment areas.

However, EPA also admits that it "cannot quantify with specificity the emissions changes for a given pollutant or pollutants, if any, that result from the NSR rule changes now being adopted, nor can we reliably determine the anticipated locations of any emissions changes." The

reasons for this uncertainty are stated to be the voluntary nature of the improvements, insufficiency of available data for modified units to estimate the benefits of the improvements as it relates to modified units, difficulty of linking permits to environmental results, and the absence of detailed records.

Given the qualitative nature of EPA's analysis and, thus, the uncertainty of this environmental benefit, it is not unreasonable to conclude that this environmental benefit may not materialize and that states will risk their air quality if they proceed to implement the reforms wholesale. Therefore, it is not unreasonable for states to be conservative and take a cautious approach to implementation, especially since the ultimate responsibility for meeting the air quality goals of the federal Clean Air Act rests with the states.

Below is an assessment of (i) the supplemental analysis that forms the basis for EPA's reform rule, (ii) Virginia's air quality needs with respect to the major NSR programs and (iii) the demonstration that EPA requires of states that choose to differ from the EPA rule. This is followed by the responses to comments related to Virginia's primary alternative approaches to the federal rule.

### **EPA Supplemental Analysis Assessment**

To provide the basis for its major new source review reform regulations, EPA has promulgated a supporting document: "Supplemental Analysis of the Environmental Impact of the 2002 Final NSR Improvement Rules," ("Supplemental Analysis") [<http://www.epa.gov/nsr/documents/nsr-analysis.pdf>]. In this document, EPA states, "These reforms are aimed at providing much needed flexibility and regulatory certainty, and at removing barriers and creating incentives for sources to improve environmental performance through emissions reductions, pollution prevention, and improved energy efficiency." EPA also states "collectively, the five NSR Improvements that the Agency is finalizing will be environmentally beneficial compared to the current program, and will improve air quality by reducing emissions from industrial facilities."

EPA goes on to state that:

improvements in air quality will result in health and welfare benefits from reduced concentrations of pollutants regulated by the NSR program, primarily criteria pollutants. These benefits are relatively small compared to those of other air regulatory programs, but will result in a net environmental benefit compared to the current rule. For example, EPA's analysis of PALs finds that there are likely to be reductions in emissions of Volatile Organic Compounds (VOC) in the range of 3,400 to 17,000 tons per year from just three industrial categories. The agency believes that, overall, the use of PALs will actually reduce emissions by a greater amount, once additional categories and pollutants are considered. The analysis also finds that the Clean Unit Test and the exclusion for Pollution Control Projects will result in emissions reductions compared to the current program. Similarly, the analysis finds that the actual-to-projected-actual test is likely to be environmentally beneficial, but only to a small extent. The final reform, the change in the emissions baseline, will affect a very small number of facilities. Although it may allow for a small number of sources to avoid permitting because of the availability of a higher baseline, a small number of sources will also now be subject to a more stringent baseline. Thus, the analysis concludes that the overall consequences of the baseline change will be negligible.

EPA acknowledges that fewer changes will trigger NSR under the 2002 rule than under the 1980 rule. Although EPA recognized that it lacked sufficient data to determine whether the 10-year lookback period would result in an overall increase or decrease in emissions, it concluded that “in either case, the magnitude of the change is likely to be very small.”

However, as discussed above, EPA has also stated that that it “cannot quantify with specificity the emissions changes for a given pollutant or pollutants, if any, that result from the NSR rule changes now being adopted, nor can [it] reliably determine the anticipated locations of any emissions changes.” EPA has acknowledged that its impact analysis is based on incomplete data and has been unable to reasonably quantify the 2002 rule’s impact on public health. A General Accounting Office (GAO) Report to Congress stated that the economic and environmental impacts of the 2002 rule are “uncertain because of limited data and difficulty in determining how industrial companies will respond to the rule.” GAO noted, for example, that because EPA lacked comprehensive data, it relied on industry anecdotes in concluding that NSR discourages sources from making changes that improve operating efficiency. GAO further pointed out that EPA’s projection that these efficient changes will decrease actual emissions is based on the unverified assumption that sources will not increase their production levels after implementing the changes. Nevertheless, GAO did not conclude that the 2002 rule lacked adequate evidentiary support. Rather, GAO recommended that EPA “monitor the emissions impacts of the rule” and “use the monitoring results to determine whether the rule has created adverse effects that the agency needs to address.”

In June 2005, the U.S. District Court of Appeals for the D.C. Circuit Court vacated the Clean Unit and PCP provisions while upholding the remaining NSR reform provisions. In light of the court’s rejection of the Clean Unit and PCP provisions (on which EPA relied in concluding that the five NSR reform provisions will improve air quality), the court recognized that there is a heightened need for EPA to have sufficient data to confirm that the remaining portions of the reform rule do not result in increased emissions that harm air quality and public health.

The court concluded that although the data on which it relied was inadequate, EPA’s agency decision to promulgate the NSR reforms was not arbitrary and capricious. The court, therefore, upheld the remaining NSR reform provisions: even though the basis for the provisions was faulty, the agency was not held liable for choosing to promulgate those provisions. However, the concern at the state level--where the rules must be implemented--is not whether EPA acted in a legally proper way or not, but rather whether the information on which EPA’s rules are based is adequate.

One may conclude from this analysis that these reforms should be implemented because there will likely be an environmental benefit due to some of the improvements and a small or negligible impact for others. One may also conclude that since there is no adverse environmental impact due to moving from the current major NSR program to the reform program, it is not prudent to retain the current program or implement a compromise program. However, given the qualitative nature of EPA’s analysis and, thus, the uncertainty of this environmental benefit, it is not unreasonable to conclude that the environmental benefit may not materialize and that states will risk their air quality if they proceed to implement the reforms wholesale. Therefore, it is not unreasonable for states to take a cautious approach to implementation, especially since the ultimate responsibility for meeting the air quality goals of the federal Clean Air Act rests with states.

### **Virginia's Air Quality and Environmental Needs**

Virginia has numerous reasons for taking a somewhat conservative approach to revising its new source review program. These reasons cover a variety of issues, from public health and air quality, to administrative and operational concerns, and are discussed in detail below.

While many aspects of the EPA rule will likely result in some air quality benefit when applied in Virginia, the Commonwealth's overall air quality situation can benefit from a certain changes to the EPA requirements. § 10.1-1308 of the Code of Virginia states, "The regulations shall not promote or encourage any substantial degradation of present air quality in any air basin or region which has an air quality superior to that stipulated in the regulations." In other words, no regulation may contribute to the deterioration of air quality. Given the uncertainty of specific impacts that implementing the federal rules will have on the areas of the state that are attaining the national standards, it is believed that a certain limitations on some aspects of the federal rules may help ensure that this state-specific need is met.

In addition to ensuring that areas of the state that meet the national standards continue to do so, the Commonwealth is also obligated to actively improve air quality. Currently, approximately one half of the Commonwealth's citizens live in areas that do not attain the national standards. Visibility problems have been identified in Virginia's Class I (national park) areas. Additionally, nitrogen deposition from airborne emissions is contributing to serious water quality problems in Chesapeake Bay. In this larger context, it is clear that the state needs to take additional steps beyond the immediate legal requirements for nonattainment and PSD areas if larger, statewide issues of air quality are to be addressed. Again, given the uncertainty surrounding the specific impacts of the federal rule, the state rule is exercising its responsibility to consider a somewhat more closely scrutinized process for implementing the basic elements of NSR reform.

Virginia has a legal obligation to incorporate the federal regulations in a manner that will result in equal or better environmental benefit. In order to balance the need to meet Virginia's specific air quality needs with the need to improve permitting certainty and flexibility, a number of revisions to the federal rules have been made.

### **Equivalency Demonstration**

To be SIP-approvable, state programs must include the EPA changes as minimum program elements, and must assure that any program changes are consistently accounted for in other SIP planning measures. Revisions to state permitting programs for both nonattainment and attainment areas are due no later than January 2, 2006.

In the preamble (67 FR 80240, December 31, 2002) to the final federal NSR regulation, EPA addresses the issue of differences from the federal base program and states:

. . . State and local jurisdictions have significant freedom to customize their NSR programs. Ever since our current NSR regulations were adopted in 1980, we have taken the position that States may meet the requirements of part 51 "with different but equivalent regulations." 45 FR 52676. Several States have, indeed, implemented programs that work every bit as well as our own base programs, yet depart substantially from the basic framework established in our rules . . . we have not implemented our base programs with a one-size-fits-all mentality and certainly do not have the goal of "preempting" State creativity or innovation.

Perhaps the biggest potential disadvantages to implementing the new applicability provisions as part of our base programs are the time and effort required to revise existing State programs and to have the revised programs approved as part of the SIP. For States that choose to adopt all of the new applicability provisions, we expect that the SIP approval process will be expeditious. Of course, the review and approval process will be more complicated for States that choose to adopt a program that differs from our base programs. For example, if a State decides it does not want to implement any of the new applicability provisions, that State will need to show that its existing program is at least as stringent as our revised base program. It would be impossible for us to plan ahead for all of the possible variations that States might ultimately elect to pursue. We will, however, reach out to relevant stakeholders immediately after publication of these rules and try to develop streamlined methods for addressing common questions that may arise during the SIP approval process.

In the text of the final federal NSR regulations (40 CFR 51.165 and 40 CFR 51.166), EPA provides additional specifics on this matter:

With regard to those provisions relating to definitions; relating to the determinations of significant emissions increases and significant net emissions; and relating to circumstances where there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase, EPA indicates that “deviations from these provisions will be approved only if the State specifically demonstrates that the submitted provisions are more stringent than or at least as stringent in all respects as the corresponding” federal provisions.

States must now address EPA’s expectation, with no further specific or formal guidance, that alternatives to the federal program be demonstrated to be equivalent to or more stringent than the federal requirements. This demonstration will be made by Virginia when the regulations are submitted to EPA as a State Implementation Plan (SIP) revision.

### **Virginia Improvements to the Federal Rule**

The EPA rule on which the state rule is based allows states some discretion in how the program is implemented. As long as the base elements of the program are included, states are allowed to tailor the federal rules to meet state needs. EPA has stated that specific enforcement of the rules is to be delineated by the states. Generally, as long as the state rule does not impede a source's ability to use the basic elements of the NSR program, EPA considers the state regulation to be equally as protective as the federal rule. The baseline elements of the EPA program are being included in the Virginia proposed regulation; however, the state is also exercising its discretion to make modifications to the baseline in order to meet state needs.

The air quality situation in Virginia requires additional controls in order to protect public health and welfare, and a strong NSR program is one tool by which this can be accomplished. However, the assertion that the EPA NSR reforms present a “rollback” of protections is inconclusive. The new rules encourage the application of air pollution control equipment and work practices. While changes to a source may no longer be scrutinized through the traditional approach of a permitting analysis for every facility change, this will be outweighed by a shift in focus to activities with more significant impacts to the environment. Limited resources will be diverted to projects with a potentially significant impact to the environment rather than on projects with positive or neutral effects to the environment. The availability of additional

recordkeeping that sources will have to conduct in order to justify projects that are exempt from major source NSR will be another positive result from the new NSR rules. Generally, the baseline federal reforms augmented with revisions designed to meet state-specific needs represents the best approach for implementing the NSR program in Virginia.

The Virginia regulation amendments are more restrictive than the applicable legal requirements in the sense that Virginia's changes may impose some relatively minor restrictions to the baseline EPA provisions. For example, the Virginia proposal limits the timeframes from which a source may establish its period of representative operation in order to assure adequate monitoring for compliance and enforcement purposes. Virginia's changes also require some additional recordkeeping and reporting, which may represent an additional upfront burden to sources that may be dissipated later on as the program transpires, and which also provide additional compliance and enforcement support.

The Virginia regulation amendments are not more restrictive than the applicable legal requirements in the sense that the EPA rule on which the state rule is based allows states discretion in how the program is implemented. EPA has stated that specific enforcement of the rules is to be delineated by the states. EPA has also stated that because the overall purpose of the NSR reforms is to encourage the installation of cleaner equipment, obstacles to the implementation of the reforms is considered to be less protective of the environment. Generally, as long as the state rule does not impede a source's ability to use the basic elements of the NSR program, EPA considers the state regulation to be equally as protective as the federal rule. The baseline elements of the EPA program are being included in the Virginia regulation; however, the state is also exercising its discretion to make modifications to the baseline in order to meet state needs.

Thus, Virginia's changes to the federal rules are intended to strike a balance between the advantages to the federal program and the uncertainties that come with it.

1. *In the EPA rule, the lookback period for determining past actual emissions for non-EGUs is specified as any consecutive 24 months in the previous 10 years. The Virginia regulation uses any consecutive 24 months in the previous 5 years, and allows sources to use another 24-month period if it is demonstrated to be more representative.*

As discussed elsewhere, state rules may be equally or more protective than federal rules. Requiring a 5-year lookback instead of a 10-year lookback may limit a source's potential to find a higher baseline. This could in turn restrict a source's ability to emit and is thus inherently more protective than (rather than equivalent to) the EPA rule.

The purpose of an extended lookback is to establish a period that is *most representative* of source operation. Establishment of the most representative operation not only enables sources to plan effective emissions control strategies, it also provides the department with more accurate information on which to base long-term air quality planning strategies. While an extended lookback period will likely result in more accurate baseline determinations, a more conservative transition is best for Virginia, and the lookback has thus been limited to 5 years.

It is unlikely that a lookback period of the most immediate preceding 24 months will accurately characterize a facility's representative operation. It is also feasible that a 10-year lookback may be optimal for certain industries under certain circumstances. It is not clear, however, that the 10-year period is the best approach for all potentially affected sources statewide. First, the 10-

year lookback will affect a limited subset of sources. Second, the 10-year lookback may not be optimal for all source types, and not all sources may have sufficient or reliable data for a 10-year period. Also, while there may be periods of a deep business trough, there may also be periods of unusually high production. In sum, while there exist a number of plausible scenarios in support of the 10-year period, there remains the possibility that these scenarios would not apply statewide to all source types in every business year.

During the course of the regulatory development period, department permitting and compliance staff expressed concern about the potential impact of the NSR reforms on their ability to perform accurate and timely compliance and enforcement appraisals. Specifically, staff expressed concern about the amount and quality of data being generated, and ability of both sources and the department to analyze this information in a timely and accurate manner.

The 5-year period was selected in order to enable sources to utilize a moderately extended lookback while providing the board assurance that no unusually high or low periods would be selected. A conservative transition to the new system will assure permitting, compliance, and enforcement reliability while allowing sources the enhanced flexibility of an extended lookback. Additionally, the regulation allows sources the use of a different time period in determining baseline actual emissions if a case can be made that the proposed alternative time period is more representative of normal source operation. This provision will provide sources with additional flexibility when appropriate, while providing the oversight necessary to monitor the program and avoid compliance issues.

With respect to the lookback period for PALs, we agree that PALs provide businesses operational flexibility while protecting the environment, and have thus included nearly every PAL provision as is in the proposal. However, we also believe that a somewhat shortened lookback period for PALs is a reasonable alternative to EPA's 10-year period that will enable sources to enjoy the benefits of PALs while ensuring that Virginia's air quality resources are protected.

2. *In the EPA regulation, the period used for establishing each pollutant baseline can be separate for each pollutant. The Virginia regulation requires that it be the same for all pollutants except where extenuating circumstances would allow use of different baseline periods.*

Restricting sources to one baseline could prevent a source from selecting the highest baselines for a number of pollutants; this is thus inherently more protective than (rather than equivalent to) the EPA rule.

During the initial development of the regulation, department permitting and compliance staff identified the potential for a significant negative impact of the multiple pollutant baseline approach on their ability to perform accurate and timely permit issuance and compliance review. Establishment of a single baseline for all pollutants was considered to be, in part, one way to alleviate this concern. The single baseline approach considerably simplifies implementation of the rule for sources as well as the department—an important consideration in a notably complex rule.

While the proposal restricts sources to one baseline, it also allows sources to use different periods for different pollutants provided that the source can demonstrate that a different period is more appropriate. This enables sources to make the case for an alternative baseline approach and for the board to approve such alternatives.

It is a reasonable compromise to allow sources an extended lookback with the understanding that the maximum possible output of all pollution types is not an acceptable outcome.

3. *The EPA regulation does not specify consequences where the owner determines there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase and does not obtain a permit. The Virginia regulation specifies how the state will act should the owner fail to make an accurate determination.*

The federal regulations do not address enforcement. However, EPA has informed the states that this is an intentional omission, and that enforcement strategies are to be addressed by the states. Virginia has done so: specifics as to how the state will act should the owner fail to make accurate determinations are consequences dealt with in other state regulations and state law. The language added to the regulation that spells out the consequences of significant emissions miscalculations is to provide emphasis and, because it is codified elsewhere in the regulations, does not have an effect on existing requirements.

4. *The EPA regulation requires owners to develop and maintain information to support their determination that a given project is not a part of a major modification may result in a significant emissions increase. The Virginia regulation requires advance notification of the availability of the information prior to beginning actual construction of the project.*

Requiring a 30-day advance notification of the availability of information prior to beginning actual construction of the project is a requirement in addition to the federal requirements, will result in additional project oversight, and is thus inherently more protective than (rather than equivalent to) the EPA rule. Additionally, language was added to the proposal to clarify that these informational provisions do not require a source to obtain any determination from the board before beginning additional construction.

It is crucially important that the department have access to data that is adequate for determining if a source is in compliance. Given that the major NSR reforms represent a significant departure from the previously existing rules, it is in the best interest of the source to maintain information sufficient to justify its actions and to avoid compliance problems, particularly in the initial stages of program implementation. This information also contributes to an improved overall picture of the state's air quality, and is essential for long-term planning purposes. As noted in the discussion regarding the consequences of significant emissions miscalculations, there is no benefit but considerable risk to a source that cannot account for its actions.

5. *The EPA rule establishes PAL duration as 10 years; the Virginia regulation contains a 5-year duration.*

Requiring a 5-year duration instead of a 10-year duration allows a source ability to make changes without permitting review while providing the department with the opportunity for reasonable periodic reviews. This approach is inherently more protective than (rather than equivalent to) the EPA rule.

PALs will result in an air quality benefit and should be implemented in Virginia. Past board experience in PAL permitting, while limited, has been positive. A great deal of effort is required initially to develop the PAL; however, once the PAL is in place it achieves emissions reductions without creating a continual small-scale permitting burden on the department or the source. The lookback period and duration have been limited to 5 years in order to provide additional

assurance that no unacceptably high emissions increases will result, and to allow department review and oversight.

2. **SUBJECT:** Clean Units and PCPs.

**COMMENTER:** U.S. EPA, Southern Environmental Law Center et al.

**TEXT:** The D.C. Circuit Court of Appeals vacated the Clean Unit exemption and the pollution control project (PCP) exemption. In light of the court's ruling, both the Clean Unit and PCP provisions need to be stricken from the proposal. Additionally, the hybrid emissions test for projects involving both so-called "clean units" and existing units must be withdrawn.

**RESPONSE:** Clean Unit and PCP provisions were vacated by the court and cannot be legally implemented at this time. EPA has also announced that states currently developing regulations should not include such provisions. Therefore, inclusion of Clean Unit and PCP provisions is not appropriate, and appropriate changes reflecting the intent of the comment have been made to the proposal..

3. **SUBJECT:** General concern about NSR program.

**COMMENTER:** Elizabeth B. Snell, Page D. Calisch, 3 identical emails

**TEXT:** These citizens generally support a strong NSR program that will meet Virginia-specific health and welfare needs.

**RESPONSE:** As discussed in the response to comment 1, the proposed regulation meets the basic federal legal requirements, which are mandatory, while containing alternative approaches to address air quality issues specific to Virginia. We agree that strong NSR regulations are necessary for protecting the environment, and have developed regulations that accomplish this goal.

No change has been made to the proposal as a result of this comment.

4. **SUBJECT:** General concern about NSR program.

**COMMENTER:** 141 emails

**TEXT:** Despite the severity of the Commonwealth's health concerns, Virginia is considering revisions to its NSR regulations that would weaken current law in response to federal action. EPA's changes to the federal NSR regulations would render a key portion of the Clean Air Act ineffective by allowing the country's oldest and dirtiest smokestacks, power plants, oil refineries and factories to increase pollution by unlimited amounts without ever having to adopt modern pollution controls. Virginia does not have to follow the federal lead, so long as the state regulations are at least as strong as the federal rules. NSR has been part of the Clean Air Act since 1977, and has been responsible for the reduction of thousands of pounds of soot and smog forming pollutants. I urge you to adopt major NSR regulations that are stronger than the federal recommendations and protect Virginia's existing rules that require polluters to clean up our air to protect public health.

**RESPONSE:** As discussed in the response to comment 1, the proposed regulation meets the basic federal legal requirements, which are mandatory, while containing alternative approaches to address air quality issues specific to Virginia. We agree that strong NSR regulations are necessary for protecting the environment, and have developed regulations that accomplish this goal.

No change has been made to the proposal as a result of this comment.

5. **SUBJECT:** Overall regulatory stringency.

**COMMENTER:** Southern Environmental Law Center (SELC) on behalf of American Lung Association of Virginia, Appalachian Voices, National Parks Conservation Association, Piedmont Environmental Council, Virginia Conservation Network, Sierra Club, and Virginia League of Conservation Voters

**TEXT:** The board has significant leeway under federal law to customize Virginia's NSR regulations to best address the state's urgent air pollution concerns. EPA acknowledges – as the Clean Air Act requires – that “[s]tate and local jurisdictions have significant freedom to customize their NSR programs,” and explicitly recognizes that a state may decide “it does not want to implement any of the new applicability provisions.” Because of the Clean Air Act's emphasis on cooperative federalism, Virginia does not have to follow the federal lead on NSR. In fact, EPA has stated that it will approve a SIP choosing an alternate course, so long as the state “show[s] that its existing program is at least as stringent as [the] revised base program.” The federal rule changes would greatly expand the overhauls and upgrades that can be made to aging industrial facilities without requiring compliance with NSR, leading to significant increases in pollution. By instituting a program that will require more aging facilities to comply with NSR when changes significantly increase emissions, Virginia will have no difficulty establishing that its program is “at least as stringent in all respects as” the base federal program.

**RESPONSE:** As discussed in the response to comment 1, we agree that the EPA rule on which the state rule is based allows states some discretion in how the program is implemented. The basic elements of the EPA program are being included in the Virginia proposal; however, the state is also exercising its discretion to make modifications to the federal rules in order to meet state needs.

No change has been made to the proposal as a result of this comment.

6. **SUBJECT:** General support of the NSR program.

**COMMENTER:** Southern Environmental Law Center et al.; Peter deFur

**TEXT:** Air pollution has serious health impacts, including heart disease, heart attacks, increased risk of death from lung cancer, and premature deaths from heart and lung problems. Each year in Virginia, approximately 1,000 people die prematurely from exposure to fine particle pollution from power plants alone. Health-related problems result in significant economic costs, with hundreds of thousands of work days and school days lost each year due to air pollution problems. Children and senior citizens are the most susceptible to temporary and permanent health impacts from air pollution.

The environmental costs of air pollution are also high. Summertime haze has reduced vistas in Shenandoah National Park by an average of 75 percent. The park also has recorded more unhealthy air days than several major cities, including Chicago and Denver, consistently ranking as one of the most polluted in the country. Equally important is the effect of emissions from coal-fired power plants on the Chesapeake Bay. Excess nitrogen causes the greatest harm to the Bay, contributing to algal blooms and widespread “dead zones.” The summer of 2005 has been one of the worst for dead zones, with 41 percent of the Chesapeake Bay suffocated by a dead zone of low- or no- oxygen water. A strong NSR program is essential to ensure that Virginia lives up to its obligations under the Chesapeake 2000 Agreement.

In addition to these environmental costs, a weakening of NSR could bring adverse economic impacts to Virginia. The designation of an area as nonattainment often deters business development because of the federal restrictions that accompany a nonattainment designation. When an area falls into nonattainment, it is prohibited from bringing in new industrial development unless it can provide pollution reduction offsets to counterbalance the increases in emissions that the new sources will bring. With so many cities and counties labeled as nonattainment, Virginia faces real limits on economic growth if it does not improve air quality.

Aggravating these difficulties are the problems dirty air creates for maintaining existing businesses. One independent analysis finds that a 25 percent increase in visitation at Shenandoah National Park due to increased visibility could yield as much as \$30 million annually in increased sales benefits and tax revenues, and 800 jobs for local communities surrounding the Park. Ground-level ozone pollution also costs Virginia’s farmers up to \$19 million annually in reduced crop yields of wheat, soybeans, cotton, peanuts, and corn. This figure excludes costs of reduced yields in wine-producing grapes, a burgeoning Virginia industry and one that is particularly vulnerable to ozone damage.

Additionally, without adequate NSR protections, existing sources would enjoy an unfair, competitive advantage over newer companies. This advantage would arise because, under the Clean Air Act, new sources already have to install modern pollution controls that are absent on many existing facilities. The NSR program simply requires existing smokestacks to install many of these same pollution control technologies whenever an older unit is modified. By requiring modified existing sources to meet many of the same requirements as new facilities, the existing NSR program helps level the playing field between entrenched and newer companies, encourages innovation in cleaner energy, creates more jobs, and spurs competition.

Accordingly, the board should resist pressure to undo important clean air protections. Instead, it should commit to maintaining a strong and healthy NSR program in Virginia and reject the EPA rollbacks on NSR.

**RESPONSE:** As discussed in the response to comment 1, we agree that the air quality situation in Virginia requires additional controls in order to protect public health and welfare, and that a strong NSR program is one tool by which this can be accomplished.

No change has been made to the proposal as a result of this comment.

7. **SUBJECT:** Baseline actual emissions – lookback period.

**COMMENTER:** Southern Environmental Law Center et al.; Peter deFur

**TEXT:** The D.C. Circuit concluded that the Clean Air Act “is silent on how to calculate such ‘increases’ in emissions,” meaning that the board has some leeway in tailoring the definition of “net emissions increase” to best fit Virginia’s needs. Under the existing Virginia rule, the baseline would be set using emissions data from the two years immediately preceding construction of a project to determine the baseline figures for all measured pollutants. EPA changed the rule to allow electric utility steam generating units (EUSGUs) to select the highest polluting 2-year period out of the last 5 years of operation preceding the change. For non-EUSGUs, operators would be able to select the highest polluting consecutive two years from the last decade of operation. The proposal replaces the 10-year lookback period with a 5-year window for all sources, both EUSGUs and non-EUSGUs alike.

While the existing rule’s 2-year period provides the most accurate picture of a facility’s operating profile, the 5-year lookback is a noteworthy improvement over the federal rule’s 10-year lookback for non-EUSGUs. Studies of emissions histories of major pollution sources suggest that limiting the lookback period for all sources to five years will significantly limit the quantity of pollution increases that would fail to trigger NSR.

At the same time, we continue to urge the board to reject both the 5- and 10-year lookback provisions as they are less protective of the environment and public health than the 2-year period that has worked well for Virginia for the last 25 years. An accurate determination of whether a change to a source results in a significant emissions increase requires a baseline emissions period representative of the source’s actual pre-change emissions. A source should not be allowed to arbitrarily reach back to a period of high emissions in order to inflate baseline emissions above its actual pre-change emissions.

The proffered rationale behind these extended lookback periods is to more accurately reflect emissions throughout the business cycle of the industry. Under the current regulations, however, if the two years immediately preceding a modification are not reflective of normal source operations, an operator is already allowed to select another 2-year period that is more representative. That is, the existing regulations take into account variations in business cycles. By cherry-picking the highest emissions from out of the last several years of operation, the extended lookback period serves only one purpose: to raise the baseline emissions figure as high as possible, thereby avoiding the installation of pollution controls in all but the most extreme cases.

Because the 5-year lookback period will lead to increases in pollution when compared to the current rule, we maintain that the Virginia NSR program should apply a 2-year lookback period to all sources unless the source can show that a prior 24-month period is more representative.

**RESPONSE:** As discussed in the response to comment 1, a more conservative lookback from 10 years to 5 is best for Virginia.

No change has been made to the program as a result of this comment.

8. **SUBJECT:** Individual pollutants and the baseline period.

**COMMENTER:** Southern Environmental Law Center et al.; Peter deFur

**TEXT:** We support the decision to maintain the current state requirement that sources use the same baseline period for all regulated pollutants rather than allow sources to vary

baselines in order to capture the highest two years of emissions for each pollutant as permitted in the federal rule. By limiting operators to a single, 24-month period for calculating baseline actual emissions, the proposal retains a simplified program (when compared to the 2002 federal rule) and decreases the resources necessary to evaluate permit applications. Moreover, the proposal remains true to the purpose of allowing a source to select a baseline emissions period that most accurately reflects emissions during a normal business cycle. Allowing different baseline periods for different pollutants would have permitted a source to select the highest 2-year period of emissions for each pollutant influenced by factors, such as the type of fuel being used, that have nothing to do with a normal business cycle. We recommend retaining the language from the proposed regulations to require sources to use the same 24-month baseline emissions period for all affected emissions units and all pollutants.

**RESPONSE:** Support for the proposal is appreciated.

No change has been made to the proposal as a result of this comment.

9. **SUBJECT:** Malfunctions.

**COMMENTER:** Southern Environmental Law Center et al.

**TEXT:** The proposed regulations permit sources to include in baseline calculations emissions associated with malfunctions. Emissions from malfunctions can be quite significant and are not, by definition, part of a source's normal operating profile. Including malfunction emissions, therefore, contradicts one of the stated purposes of the EPA revisions, which is to calculate baseline emissions to more accurately reflect normal source operations. Consequently, sources should not be allowed to artificially inflate baseline calculations by including emissions increases that result from malfunctions.

That the proposed regulations also require sources to include emissions from malfunctions in projected actual emissions does not justify allowing such emissions to be included in baseline calculations. The proposed regulations provide that emissions from malfunctions are included in future emission projections only to the extent such emissions are quantifiable. As a result, a source will likely either: 1) project that its new or modified equipment will function properly and therefore no emissions increases from equipment malfunctions will occur; or 2) claim that there is no way to project the number or frequency of any potential malfunctions for new or modified equipment and therefore such emissions are not quantifiable.

Either way, a source will be allowed to count known emissions increases from malfunctions in its baseline while omitting such increases from calculations of future emissions. To address this problem, the board should delete malfunction emissions from both sides of the equation, not allowing them to be factored into either baseline or projected actual emission calculations. Alternatively, to ensure that a source does not overexploit this malfunction loophole, it could be required to assume the same frequency, number, duration, and intensity of past malfunctions in projecting future emissions.

**RESPONSE:** Malfunction emissions are considered to be part of a facility's overall emissions, and records of malfunction emissions are included in every aspect of emission reporting; to remove them from the evaluation would present a unrealistic emissions picture, and would be inconsistent with the remainder of the air program. For example, when sources track their post-change emissions, many will use CEM data which will include emissions during

periods of malfunction. If the malfunction emissions are excluded from the projected actuals but not from the post-change emissions, this could result in enough of a discrepancy to have it appear that NSR was triggered. Malfunctions are, by definition, unexpected, nonrecurring events, and as such can be recorded but not predicted.

No change to the proposal has been made as a result of this comment.

10. **SUBJECT**: Demand growth.

**COMMENTER**: Southern Environmental Law Center et al.

**TEXT**: When EPA first proposed adoption of an actual-to-projected-actual test for non-EUSGUs, it proposed to eliminate the demand growth exclusion from projected actuals for EUSGUs and non-EUSGUs. EPA found that “the demand growth exclusion is problematic because it is self-implementing and self-policing,” and noted that in a market economy, sources often make physical changes in order to respond to market forces. Consequently, there is no plausible distinction between emissions increases due solely to demand growth as an independent factor and those changes at a source that respond to, or create new, demand growth, which then result in increased capacity utilization.

EPA later reversed course to add a demand growth exemption, while failing to provide any method for distinguishing emissions increases solely attributable to demand growth from emissions increases due to a physical change at a unit. The inclusion of a demand growth exclusion in the method for calculating projected actual emissions, therefore, creates a major loophole in the NSR program that will allow sources both to under-predict future emissions and to avoid enforcement for exceeding projected actual permit limits by attributing the emissions to demand growth.

The demand growth exemption essentially changes the applicability test to a past-potential-to-future-actual test. That is, sources are likely to maintain that any post-change emissions increases due to output increases up to pre-change nameplate capacity are due to demand growth, regardless of the facility’s pre-change actual operating profile. For these reasons, the demand growth exclusion provides no benefit for NSR enforcement, and would in fact guarantee massive, unregulated increases in pollution. It should be deleted from the proposal.

**RESPONSE**: This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.

11. **SUBJECT**: Enforcement, recordkeeping, and reporting.

**COMMENTER**: Southern Environmental Law Center et al.

**TEXT**: The EPA rules include a recordkeeping exemption for facilities believing that they would have “no reasonable probability” of triggering NSR. This exemption would have allowed operators to avoid keeping any “records at all – neither the data on which they based their projections nor records of actual emissions going forward.” The D.C. Circuit Court of Appeals struck down this exemption, finding it to be arbitrary and capricious. The court observed, “If EPA actually knew which sources had no ‘reasonable possibility’ of triggering NSR, these sources would obviously have no need to keep records. The problem is that EPA has failed to explain how, absent recordkeeping, it will be able to” make that determination.

EPA had argued that it could use its enforcement authority to ensure compliance with NSR. The court saw the obvious flaw in this reasoning: “EPA certainly has such inherent enforcement authority, but even inherent authority depends on evidence.”

The proposal would add basic, commonsense preconstruction notice, recordkeeping, reporting, and enforcement provisions absent from the 2002 federal rules. Specifically, the proposal requires advance notice to DEQ of the availability of information before an operator can commence construction on a project that the operator determines does not trigger NSR. Additionally, the proposal outlines specific enforcement steps that DEQ will take if an owner wrongly determines that a modification does not trigger NSR. DEQ deems these requirements as necessary to ensure compliance with the NSR program for the same reasons the D.C. Circuit found the absence of notice and recordkeeping requirements in the federal rule to be arbitrary and capricious.

We support the addition of these provisions to the state program. If a source relies on projected actual emissions to avoid NSR, it should be held to its projections. The absence of these enforceability provisions would invite self-serving future emissions calculations to unlawfully avoid NSR. If post-change actual emissions are found to exceed the projections to such a degree that it would have constituted a significant emissions increase had pre-change projections been accurate, the source should be required, as proposed, to comply with NSR as if construction had not commenced.

Additionally, preconstruction notice and post-change recordkeeping requirements greatly ease the enforcement burden on the department. Ensuring compliance with NSR requires knowledge of modifications made to existing emissions units that sources contend are not subject to NSR. The preconstruction notice requirements guarantee that DEQ will know about such modifications in a timely fashion, making enforcement more feasible. Similarly, basic recordkeeping procedures will allow DEQ to effectively monitor the real-world impact of construction and modification projects, to determine if pollution has increased, thereby triggering NSR.

**RESPONSE:** Support for the proposal is appreciated.

No change has been made to the proposal as a result of this comment.

12. **SUBJECT:** Netting.

**COMMENTER:** Southern Environmental Law Center et al.

**TEXT:** The proposed regulations define “major modification” as a physical change that results in a significant emissions increase and a significant net emissions increase. In other words, if a physical change results in a significant emissions increase, a source can still take advantage of these netting provisions to “net out” of NSR. However, if a physical change does not result in a significant emissions increase, but netting calculations would result in a significant net emissions increase, the source would not be required to “net in” to NSR. By allowing sources to “net out” without requiring them to “net in,” the proposed regulations guarantee that modifications resulting in significant emissions increases will be able to avoid installation of pollution controls. Virginia can strengthen its NSR program and reduce air pollution statewide by requiring sources to “net in” to NSR as well as allowing them to “net out.”

**RESPONSE:** EPA has, as a matter of longstanding policy, been implementing the general concept of “netting in,” as the commenter terms it, in the PSD program for many years. Continued implementation of this policy has not resulted in any discernable environmental effect.

No change has been made to the proposal as a result of this comment.

13. **SUBJECT:** PALs in general.

**COMMENTER:** Southern Environmental Law Center et al.

**TEXT:** Experience in states that have experimented with PALs suggests that a PAL exemption would greatly complicate the Virginia NSR program, increase the burden on DEQ, and make NSR enforcement far more difficult. As noted in the STAPPA and ALAPCO New Source Review Menu of Options, “[s]tate and local permitting authorities have noted the high labor costs of developing a PAL, since every emissions unit at the source must be evaluated, a comprehensive monitoring system to track compliance must be designed, and the baseline emissions calculations (setting the PAL) can be laborious and contentious.”

More fundamentally, the PAL baseline and renewal provisions of the federal rule will allow sources to lock in historically high emissions levels for several years into the future, which would likely result in significantly more pollution than would be allowed under the state’s current NSR program. The proposal attempts to address this concern by proposing a 5-year limit on the duration of a PAL, instead of the 10-year limit in the base federal rule. Although the 5-year provision is an improvement, it does not negate the fact that a PAL exemption would lead to certain increases in air pollution emitted. Accordingly, the board should delete the PAL exemption in its entirety from the Virginia program.

**RESPONSE:** As discussed in the response to comment 1, PALs will result in an air quality benefit and should be implemented, with some restrictions, in Virginia.

No change has been made to the proposal as a result of this comment.

14. **SUBJECT:** Malfunctions--PAL baseline.

**COMMENTER:** Southern Environmental Law Center et al.

**TEXT:** Emissions from malfunctions should not be included in a PAL baseline. The proposed regulations allow sources to include in their baseline calculations emissions associated with malfunctions. This allowance is carried over into the PAL program. Sources should not be allowed to pad their PAL baselines by including emissions increases that result from malfunctions.

**RESPONSE:** As discussed in the response to comment 9, malfunction emissions are considered to be part of a facility’s overall emissions, and records of malfunction emissions are included in every aspect of emission reporting; to remove them from the evaluation would present a unrealistic emissions picture, and would be inconsistent with the remainder of the air program.

No change has been made to the proposal as a result of this comment.

15. **SUBJECT:** PAL and BACT/LAER

**COMMENTER:** Southern Environmental Law Center et al.

**TEXT:** A fundamental feature of NSR is its requirement that all new major sources of emissions install BACT or LAER. Under the PAL exemption in the proposed regulations, however, once a PAL is established, a source is allowed to make physical changes without triggering NSR, so long as sourcewide emissions remain below the PAL. This exclusion includes constructing new emissions units. Although a PAL can provide a source with flexibility to make changes to existing units without triggering NSR, it should not exempt sources from installing BACT on new units. Any PAL exemption considered by the state should require a source to meet BACT requirements for any new emissions unit installed during the term of the PAL if the unit would have the potential to emit at or above the significance level for the PAL pollutant

**RESPONSE:** The addition of a new emissions unit, while potentially exempt under a PAL for major NSR, may nevertheless still be subject to BACT under the state minor NSR requirements. If a new unit's emissions are below the PAL level, and below the significance level for minor NSR, then its emissions are unlikely to have a significant impact on air quality. Note that if addition of a new unit would necessitate an increase in the PAL, then that unit would be required under 9 VAC 5-80-1865 L 1 c to obtain a major NSR permit regardless of the magnitude of the emissions increase resulting from it (i.e., no significance levels apply). Such an emissions unit must comply with any emissions requirements resulting from the major NSR program process (such as BACT), even though it has also become subject to the PAL. Additionally, there are a number of safeguards throughout PAL requirements designed to prevent any emissions increase that will have a negative impact on air quality.

No change has been made to the proposal as a result of this comment.

16. **SUBJECT:** PALs and synthetic minor emission limits taken to avoid NSR.

**COMMENTER:** Southern Environmental Law Center et al.

**TEXT:** The federal rule did not change the provision in the federal NSR program that requires a source that relaxes a synthetic minor emissions level taken to avoid NSR, such that the modification that avoided review would have become a major modification under the relaxed standard, to undergo NSR as though construction on the modification had not commenced. And yet, it is clear from the preamble to the federal rule that EPA intended to exempt PAL sources from the requirement of 40 CFR 52.21(r)(4). As a result, the PAL provisions of the proposed regulations unfortunately exempt PAL sources from this requirement. The exemption from the provisions of 40 CFR 52.21(r)(4) is the equivalent of permitting sources to remove pollution control equipment from existing emissions units once a PAL is established. It represents a step backward in air quality protection and should not be permitted. If a PAL exemption is contemplated, it should provide that a PAL source is required to continue to comply with synthetic minor emissions levels taken to avoid NSR, or to install BACT on the subject unit.

**RESPONSE:** 9 VAC 5-80-1865 A 1 c, which is based on 40 CFR 52.21(aa)(1)(ii)(c), states that any physical change in or change in the method of operation of a major stationary

source that maintains its total sourcewide emissions below the PAL level, meets the rule's general PAL requirements, and complies with the PAL permit is not subject to the provisions in 9 VAC 5-80-1605 C (restrictions on relaxing enforceable emission limitations that the major stationary source used to avoid applicability of the major NSR program). 9 VAC 5-80-1605 C is analogous to 40 CFR 52.21(r)(4); both texts state: "At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements or paragraphs (j) through (s) of this section shall apply to the source or modification as though construction had not yet commenced on the source or modification." Therefore, EPA did include the exemption in the rule at 40 CFR 52.21(aa)(1)(ii)(c), and it has been included in the proposal.

The general purpose of a PAL is for a source to maintain its emissions below a certain level in exchange for the ability to make changes without undergoing the full permitting process. There are a number of safeguards built into the PAL permitting process to prevent regression in air quality. If the PAL will result in an overall reduction in air pollution, then an exemption from minor NSR levels is appropriate.

No change has been made to the proposal as a result of this comment.

17. **SUBJECT:** PAL increase.

**COMMENTER:** Southern Environmental Law Center et al.

**TEXT:** The proposed regulations provide that a PAL can be adjusted upward during the term of the PAL if the sum of emissions from small units, plus emissions from major units assuming BACT equivalent controls, plus allowable emissions from all new and modified units, exceeds the existing PAL. If an existing unit is complying with a BACT or LAER requirement established in the previous five years, the emissions control level for the unit is assumed to represent current BACT or LAER requirements.

Given the rapid evolution of pollution control technology, one would assume that in many instances the emissions rates associated with BACT and LAER at a source will be substantially lower at the time the owner submits an application for a PAL increase than they were five years earlier. Once a PAL is established, it should not be increased based on anything other than a current BACT/LAER analysis for all major emissions units. Any PAL exemption considered by the board should not allow the PAL to be increased during the PAL effective period unless the emissions calculation is determined by conducting a new BACT/LAER analysis for all major units, regardless of when any previous analysis may have been conducted.

**RESPONSE:** While some types of pollution control technology evolve rapidly, most associated with BACT and LAER controls experience change on a far slower and more incremental scale. If analysis demonstrates that an upward adjustment would result in excessive emissions, then the board need not approve the adjustment: for example, 9 VAC 5-80-1865 K 2 states, "The board may set the PAL at a level that it determines to be more representative of the source's baseline actual emissions, or that it determines to be more appropriate considering air quality needs, **advances in control technology**, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the board in a written rationale."

(Emphasis added.) A proposed increase would also be subject to the public participation requirements of 9 VAC 5-80-1865 D. There are thus a number of opportunities for the board to adjust the PAL increase in the unlikely event that a significant change in BACT or LAER occurs.

No change has been made to the proposal as a result of this comment.

18. **SUBJECT**: PAL renewal.

**COMMENTER**: Southern Environmental Law Center et al.

**TEXT**: The proposed regulations provide that at the end of its 5-year effective period, a PAL can be renewed at its existing level if the highest 2-year emissions period for each PAL pollutant during the previous five years, plus an amount equal to the applicable significance level for the PAL pollutant, equals or exceeds 80 percent of the existing PAL level. This provision effectively locks in historically high emissions levels for several years into the future. In order to prevent this result, a PAL exemption should provide that a PAL can only be renewed at a level equal to emissions levels for the two years immediately preceding a renewal application. It should also provide DEQ with the discretion to lower the PAL level if required to maintain or achieve healthy air, or if warranted by advances in pollution control technology or other relevant factors.

**RESPONSE**: Given that we are limiting sources to a 5-year lookback, it seems reasonable to base renewal levels on that somewhat limited lookback period. The board has a number of opportunities in the PAL review process where adjustments can be made to avoid any unusually large or inappropriate increases.

No change has been made to the proposal as a result of this comment.

19. **SUBJECT**: “Bad actor” exclusion.

**COMMENTER**: Southern Environmental Law Center et al.

**TEXT**: Because the proposed PAL exemption would allow sources to lock in historically high emissions levels, the board should ensure that any operator obtaining a PAL does not have a history of NSR or related air quality violations. Furthermore, because any PAL exemption would allow an operator to avoid NSR, this privilege should not be granted to operators that have a history of violating the program. A “bad actor” exclusion, prohibiting repeat violators from obtaining a PAL, would be beneficial in addressing these concerns.

**RESPONSE**: It is unlikely that a source with a poor compliance record would be able to muster the extensive documentation and public scrutiny necessarily to justify PAL issuance.

No change has been made to the proposal as a result of this comment.

20. **SUBJECT**: General support for the federal approach.

**COMMENTER**: Virginia Manufacturers Association

**TEXT**: The VMA strongly supports the federal NSR reforms and advocates adoption of the federal NSR reforms because, as EPA notes, they would greatly streamline and simplify

NSR, provide certainty about NSR applicability, compliance and enforcement, and reduce unnecessary permitting burdens on companies and DEQ. The federal NSR reforms would enable Virginia's businesses to improve the productivity, reliability, and safety of manufacturing facilities on which so many citizens of the Commonwealth depend for their livelihood.

Most importantly, the federal NSR reforms would provide these critical benefits without jeopardizing air quality in the Commonwealth. In fact, after a thorough analysis, EPA has concluded that collectively, the federal reforms will result in a net environmental benefit compared to the NSR rules currently in effect in Virginia. Thus, VMA urges the board to adopt the federal NSR reforms without change.

Since the beginning of its involvement in NSR reform in Virginia, the VMA has expressed concern that Virginia should not needlessly adopt NSR rules more stringent than federally required. For years it has been the policy of the Commonwealth to eschew the imposition of regulatory requirements on its businesses and citizens "which are more restrictive than applicable federal requirements" unless a cogent showing of necessity supports a more restrictive Virginia rule. This principle is codified in § 10.1-1308 A of the Virginia Air Pollution Control Law. Furthermore, § 2.2-4014 of the state code establishes a procedure whereby the General Assembly reviews regulations during the promulgation or final adoption process. For regulations that are more restrictive than applicable federal requirements, the General Assembly has the opportunity to judge whether such regulations are truly necessary in the Commonwealth.

Virginia has the opportunity to adopt EPA's NSR reforms, which are applicable federal requirements, but the board has proposed to deviate from the federal NSR rules in ways that are more restrictive than the applicable federal requirements. Based in part on the EPA's evaluation of the environmental effects of the federal NSR reforms, the VMA believes the board and DEQ cannot sustain their burden to demonstrate that more restrictive NSR rules are necessary in Virginia. More stringent Virginia rules which stifle manufacturing innovation, safety, reliability, and operational flexibility without any incremental benefit to the environment cannot be justified as "necessary" under longstanding Virginia law and policy.

**RESPONSE:** We agree with the commenter that the NSR reforms will streamline and simplify NSR, provide certainty about NSR applicability, compliance and enforcement, and reduce unnecessary permitting burdens on companies and DEQ without jeopardizing air quality in the Commonwealth. We also believe that the NSR rules themselves, as well as overarching law and regulation, enable states to tailor federal programs to meet individual state needs. As discussed in the response to comment 1, EPA allows states the flexibility to adopt rules different from the federal as long as the result is equally protective of public health and welfare. The Virginia proposal incorporates the basic elements of the federal NSR reforms, with certain limited changes needed to meet specific state air quality needs.

In its discussion regarding the baseline lookback period (see comment 27), the commenter cites a number of states competing with Virginia industry that have adopted the 10-year lookback consistent with the EPA rule: Alabama, Florida, Georgia, Indiana, Kentucky, Louisiana, Mississippi, Ohio, South Carolina, Tennessee, and West Virginia. Of these states, Alabama, Florida, Georgia, Indiana, Louisiana, South Carolina, and Tennessee have also made numerous changes apart from the lookback period—many significant—to their state rules that differ from the federal. Note that Georgia, for example, cites as the basis for its numerous changes to the

EPA rule a general state need to protect air quality and to ensure compliance and enforceability of its rules.

No change has been made to the proposal as a result of this comment.

21. **SUBJECT**: Overall balance of interests in the regulatory development process.

**COMMENTER**: Virginia Manufacturers Association

**TEXT**: In the Agency Background Document, DEQ says the deviations from the federal NSR reform regulations were "chosen as a reasonable compromise that would allow permitting flexibility while protecting enforceability and maintaining clean air protections." To the extent that there is any "compromise" inherent in NSR reform, it is already in the federal rules. In the litigation challenging the federal NSR reform regulations, Virginia expressed its belief "that the 2002 [NSR reform] Rule is an appropriate balance of potentially competing policies and interests." All of the "compromise" (i.e., "balance") that is "reasonable" (i.e., "appropriate") has already been embodied in the federal rules. Any deviation from the federal rules by Virginia would wreck the "appropriate balance of potentially competing policies and interests" in the federal NSR reform rules.

**RESPONSE**: Virginia was made part of the litigation by the Office of the Attorney General without input from the Executive Branch, including the Secretariat of Natural Resources. Positions expressed in the litigation therefore do not represent the views of the board or the department. Any improvement upon the federal rules would not "wreck the appropriate balance of potentially competing policies and interests in the federal NSR reform rules." To the contrary: as discussed in the response to comment 1, federal rules explicitly allow for state regulations to differ from the federal, thus allowing states to consider the rules and draw their own conclusions as to what is more protective of public health and welfare. Note that neither EPA nor the court in its review of EPA's actions consider whether EPA had correctly addressed any issues of balance. On behalf of the Commonwealth, the board exercised the state's right to modify the federal rules.

The compromise made by the department as reflected in the proposal was the result of, among other considerations, implementation of the regulatory development process as required by state and federal law and regulation. Among the many factors considered during the regulatory development process was input from a regulatory ad hoc group that was comprised of a balanced group of organizations representing different viewpoints within the Commonwealth. The primary goal of the ad hoc group process was to ensure that varying viewpoints among Virginians were considering during the initial stages of regulatory development, not to revisit conflicting opinions surrounding the federal rules that have already been addressed by EPA. Additionally, the proposal underwent a 60-day public comment period, including a public hearing, in order to obtain additional information--such as that offered by the commenter--in order to enable an informed choice as to what potential alternatives were appropriate for the state rule. Considering different opinions and arriving at a conclusion is integral to the regulatory development process when the state has the obligation to develop its own rule. Otherwise, EPA would have simply issued a standard and the state would have simply incorporated it without change.

No change has been made to the proposal as a result of this comment.

22. **SUBJECT:** General PSD issues in Virginia law.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** In the preamble to the proposed regulations, the DEQ cites the requirement in the Virginia Air Pollution Control Law that regulations “shall not promote or encourage any substantial degradation of present air quality” and shall “actively improve air quality” in the Commonwealth. There is no evidence that adopting the federal NSR reforms, instead of the board’s proposed more stringent rules, would violate these obligations. EPA itself could not impose any such NSR regulations on Virginia nor can that Agency approve any such regulations into the Virginia SIP.

**RESPONSE:** As discussed in response to comment 1, states have the explicit right to revise the baseline federal rules as they find appropriate. Based on information gathered during the regulatory development process (including the comments and information being discussed in this document) and considered in the larger context of Virginia’s air quality situation, a number of limited changes to the federal rule were identified in order to assure that the state law is met.

No change has been made to the proposal as a result of this comment.

23. **SUBJECT:** General state of air quality in Virginia/SIP submittals.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** DEQ also cites the fact that “currently, approximately one half of the Commonwealth’s citizens live in areas that do not attain the [NAAQS].” DEQ fails to note this nonattainment is exclusively for the ozone NAAQS and that the department is adequately addressing the ozone nonattainment issues in Virginia through the submission of SIP revisions to EPA. Indeed, if the DEQ’s SIP submissions were not sufficient to address the nonattainment issues, EPA would not approve them. The SIP amendments DEQ has developed do not in any way depend on NSR provisions more stringent than the federal regulations. There is also good reason to believe from recent ambient air quality analyses that Virginia’s ozone nonattainment areas outside of Northern Virginia may be redesignated as attainment in the near future. EPA and Virginia can best address attainment of the ozone NAAQS through the many emission control programs specifically designed for that purpose, not by making our NSR program more stringent than the federal requirements.

**RESPONSE:** While it is true that the Commonwealth has met and continues to meet its overall SIP requirements, nothing in the federal code or regulations prevents states from revising their SIPs as needed to meet the NAAQS; see response to comment 1. A state may have a complete and approved SIP while continuing to have violations of the NAAQS, which is very much the case in Virginia. Virginia also contains a number of areas that have been redesignated from nonattainment to maintenance, and it is important that these areas continue to meet their maintenance plan obligations and not relapse into nonattainment. Finally, the air quality in PSD areas is not allowed to deteriorate; this will not happen in the absence of ongoing state programs to address Virginia-generated emissions as well as those transported into the state from elsewhere over which Virginia has no control.

EPA's SIP requirements allow states considerable latitude in determining what measures are needed in the state to meet the federal standards, and Virginia is now taking this opportunity to do so. While we continue to meet both the specific federal requirements for controlling criteria pollutants (such as, for example, implementation of the CAIR rule) as well as their general directive for preparing state-specific plans, and while we are optimistic that implementation of these programs will ultimately result in the few remaining localities in the state not attaining the NAAQS to meet attainment, we must continue to take active steps to reduce ozone, not wait and hope for it to happen. The proposed changes to the NSR reform provisions are designed to provide added protection and certainty to a program with the potential for significant effects on the state's air quality without preventing the regulated community from taking advantage of the program's potential for implementing projects that can benefit the environment.

No change has been made to the proposal as a result of this comment.

24. **SUBJECT:** General state of air quality in Virginia/regional issues.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** In the preamble, DEQ states: "Virginia's nonattainment problems extend beyond its borders as well: a neighboring state has submitted a § 126 petition to EPA claiming that Virginia's air pollution is having a negative impact on its air quality." In its § 126 petition, North Carolina alleged that large electric generating units (EGUs) in five states, including Virginia, are significantly contributing to nonattainment, or interfering with maintenance of attainment, of the 8-hour ozone NAAQS in North Carolina. North Carolina also alleged that large EGUs in 12 states, including Virginia, are significantly contributing to nonattainment, or interfering with maintenance of attainment, of the PM<sub>2.5</sub> NAAQS.

On August 24, 2005, EPA proposed to deny the petition with respect to the 8-hour ozone NAAQS. EPA's analyses show all of North Carolina to be in attainment for 8-hour ozone NAAQS following implementation of the federal Clean Air Interstate Rule. In short, implementation of the federal CAIR in Virginia, not adoption of a major NSR program more stringent than federally required, will eliminate any significant impact Virginia EGUs might be having on air quality in North Carolina.

EPA also proposed to deny North Carolina's § 126 petition with respect to the PM<sub>2.5</sub> NAAQS for all states, including Virginia, where the federal CAIR is implemented either by EPA's approval of a SIP or by EPA's imposition of a federal implementation plan (FIP). Implementation of the federal CAIR "would fully address the "PM<sub>2.5</sub>-related interstate transport problem identified in the CAIR and thus . . . there would no longer be any basis for the section 126 findings" with respect to the PM<sub>2.5</sub> NAAQS. To the extent any of North Carolina's allegations against Virginia sources are valid, they will be thoroughly addressed by implementation of the CAIR in Virginia, either through a SIP or a FIP. In short, North Carolina's § 126 petition provides absolutely no justification for imposing more stringent NSR requirements on Virginia businesses.

**RESPONSE:** North Carolina's § 126 petition may not provide a legal justification for making changes to Virginia's NSR rules; however, the fact that Virginia was included in the petition suggests that there is room for improvement, regionally and within the state. The petition was one element of many considered by the department in its general assessment of overall air quality in the state as well as the region.

No change has been made to the proposal as a result of this comment.

25. **SUBJECT:** General state of air quality in Virginia/nitrogen deposition.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** In the preamble, DEQ refers to “visibility problems . . . in Virginia’s national park areas.” DEQ never says why a more stringent NSR program in Virginia is necessary to address visibility problems or how it would ameliorate the visibility problems. In fact, it isn’t necessary. DEQ also cites “nitrogen deposition from airborne emissions contributing to serious water quality problems in Chesapeake Bay.” Again, DEQ never explains why a more stringent NSR program in Virginia is necessary to address airborne NO<sub>x</sub> deposition in the Bay or how it would ameliorate this problem. In fact, it isn’t necessary and would have little or no effect on nitrogen deposition into the Bay. NSR is not the mechanism to address these air quality concerns. There are numerous other, much more effective air quality programs specifically designed to address these concerns.

**RESPONSE:** As discussed in comment 1, regional haze and nitrogen deposition are among a number of air quality problems facing the Commonwealth. No, changes to some aspects of the federal NSR reforms will not directly solve visibility problems in Virginia’s Class I areas or water quality problems in the Bay. The fact remains that pollution in these areas is serious, which suggests that additional measures beyond those in the baseline federal rules are needed. As the commenter states in comment 26, the purpose of the PSD program is not to reduce emissions, but to limit new emissions so as to prevent significant deterioration of air quality in the attainment areas. If the air in Shenandoah National Park has indeed deteriorated to the point where portions of it have been declared nonattainment, then surely it and other PSD areas in the state need deteriorate no further.

No change has been made to the proposal as a result of this comment.

26. **SUBJECT:** General state of air quality in Virginia/other federal programs.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** NSR is not the mechanism to address the air quality concerns DEQ cites in the preamble because it is not a control program for reducing emissions. EPA has stated this concisely: “Major NSR is not a measure to reduce emissions to assure attainment.” It’s clear that the purpose of the PSD program is not to reduce emissions, but to limit new emissions so as to prevent significant deterioration of air quality in the attainment areas. As for nonattainment NSR, EPA explains: “The major NSR program’s purpose ‘is to permit States to allow continued growth or expansion in nonattainment areas, so long as this growth or expansion is undertaken in a manner consistent with the goals and objectives of the Clean Air Act.’” In short, NSR is not a program designed to reduce emissions to improve air quality.

EPA has adopted a host of federal programs, applicable in Virginia, that are specifically designed to reduce emissions to improve air quality and that address the air quality concerns DEQ cites in the preamble. These programs mandate massive emission reductions from both new and existing sources. Prime examples are the federal Acid Rain Program, the NO<sub>x</sub> SIP Call, the Regional Haze Program, and the Clean Air Interstate Rule. The Acid Rain Program, which applies to large coal-fired electric generating units, has resulted in huge decreases in

emissions of SO<sub>2</sub> and NO<sub>x</sub> and dramatically improved air quality nationwide. To further reduce emissions of NO<sub>x</sub>, one of the principal precursors to the formation of atmospheric ozone, in the East, EPA promulgated the NO<sub>x</sub> SIP Call. In conformance with the NO<sub>x</sub> SIP call, the board adopted the NO<sub>x</sub> Budget Trading Program. The NO<sub>x</sub> Budget Trading Regulations require Virginia sources to make massive additional reductions of NO<sub>x</sub> emissions. The federal Regional Haze Program is designed to implement the mandate of the Clean Air Act to restore and enhance visibility in our national parks and wilderness areas. Virginia must develop regulations to require best available retrofit technology (BART) at those sources DEQ determines are interfering with visibility in Class I areas.

In addition, Virginia must soon adopt regulations to meet the requirements of the federal CAIR. The DEQ has already begun this rulemaking process. CAIR will result in further, deep cuts in emissions from new and existing sources in Virginia and neighboring states. In sum, EPA and Virginia already have several key emission control programs specifically designed to address ozone nonattainment, visibility, and acid deposition through massive reductions in NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>2.5</sub>, and other emissions from both new and existing sources.

In the preamble, DEQ concludes: "In the larger context, it is clear that the state needs to take additional steps beyond the immediate legal requirements for nonattainment and PSD areas if larger, statewide issues are to be addressed." We disagree there is any need for more stringent NSR regulations in Virginia, much less that such a need is "clear." In the larger context of the specifically tailored emission control and air quality programs described above (and others, e.g., mobile source control programs), an NSR program more stringent than the federal program is neither a necessary nor a cost-effective way to improve air quality in the Commonwealth. In short, we do not believe the board or DEQ has shown, or is able to show, that Virginia's NSR regulations must be more stringent than federally required.

**RESPONSE:** We agree that the purpose of the NSR program is to permit states to allow continued industrial growth **so long as this growth or expansion is undertaken in a manner consistent with the goals and objectives of the Clean Air Act.** (Emphasis added.) As discussed in the response to comment 1, the proposed changes to the NSR program are intended to implement the NSR reform provisions while ensuring that Virginia can meet the overall goals and objectives of the Clean Air Act. Virginia is in the process of implementing the EPA measures enumerated by the commenter, and we agree that these programs will contribute to improvements in air quality. § 10.1-1308 of the Code of Virginia states, "The regulations shall not promote or encourage any substantial degradation of present air quality in any air basin or region which has an air quality superior to that stipulated in the regulations." Given the uncertainty of specific impacts that implementing the federal rules will have on the areas of the state that are attaining the national standards, and given that there are areas in the state that continually fail to meet national standards, certain limitations on some aspects of the federal rules may contribute toward meeting these state-specific needs.

No change has been made to the proposal as a result of this comment.

27. **SUBJECT:** Past actual emissions baselines.

**COMMENTER:** Virginia Manufacturers Association, Dominion

**TEXT:** Part of the solution to NSR capacity confiscation in the federal reform rules is the use of a "long lookback" period to determine past actual emissions. Under the federal NSR

reform rules, businesses can look back to any consecutive 24-month period in the past 10 years to set the baseline emission rates. (The baseline rates must reflect any new emission reduction requirements imposed since this 24-month period.) EPA explained:

The new [long lookback] baseline procedure is specifically designed to allow a source to consider a full business cycle in determining whether there will be an emissions increase from a physical or operational change. . . . Consequently, the new procedure ensures that a source seeking to make changes at its facility at a time when utilization may not be at its highest can use a normal business cycle baseline by allowing the source to identify capacity actually used in order to determine an average annual emissions rate from which to calculate any projected actual emissions resulting from the change.

EPA explained further that the 10-year lookback approach would “eliminate uncertainty and delay over which period is most representative” and have the added benefit of “removal of the existing rule’s effect of ‘confiscating capacity’ when changes occur during a low point in a source’s natural business cycle.”

Virginia businesses must be allowed to have the benefit of the full 10-year lookback in the federal NSR reform rules. NSR capacity confiscation is not a theoretical concern to Virginia businesses. In 1999, before EPA promulgated its proposed 10-year lookback rule, Congressman Rick Boucher, representing Virginia’s 9th Congressional District, wrote to the Assistant EPA Administrator to express his concern with the effects of NSR capacity confiscation on Virginia businesses. Rep. Boucher noted:

We have, however, lost production ability in Virginia as a result of the application of this [NSR] regulation. The loss occurs when sources apply for pre-construction permits, at which time a calculation is made comparing potential production to actual production during a previous window of time. Should it be determined that the source had not produced at its permitted potential during this window, the source would lose the difference between the potential permitted level and the actual production level during that period.

EPA promulgated a 10-year lookback in the federal NSR reform rules because the Agency recognized that any shorter period would perpetuate capacity confiscation for most sectors of American business. American businesses routinely experience downturns in business cycles spanning much longer than five years. EPA commissioned a study “to better understand what time period best represents an industry’s normal business cycle.” EPA “concluded from the study that 10 years of data is reasonable to capture an entire industry cycle.”

EPA’s selection of a 10-year lookback period is clearly supported by other analyses of American manufacturing data for the past 30 years. Our own data clearly illustrate that American manufacturing experiences business cycles much longer than five years. The data show business cycles with trough to trough durations of approximately seven years. These cycles in American manufacturing coincide with worldwide business cycles.

Virginia’s manufacturers compete in the national and worldwide markets and are similarly affected by cyclical swings in supply and demand. An analysis was performed for one large Virginia manufacturing facility, Celanese Acetate. Production data for this plant from 1985 to the present showed production troughs in 1987 and 2000 separated by 13 years. The plant is currently experiencing increased product demand as domestic and worldwide supply and demand shift into a different part of the business cycle. In sum, it is clear that Virginia

manufacturers must have the full 10-year lookback period to avoid perpetuation of NSR capacity confiscation.

A 5-year lookback would place Virginia manufacturers at a significant competitive disadvantage compared to their competitors subject to NSR rules with a 10-year lookback period. Virginia's manufacturers compete heavily with manufacturers located in neighboring Southern and Midwestern states: Alabama, Florida, Georgia, Indiana, Kentucky, Louisiana, Mississippi, Ohio, South Carolina, Tennessee, and West Virginia. All of these states have adopted or proposed NSR reform rules with a 10-year lookback period. North Carolina is the only state among Virginia's prime competitors that has adopted a 5-year lookback period.

The important benefits of the full 10-year lookback can be achieved without any jeopardy to the environment. EPA notes that the 10-year lookback baseline methodology will not alter the baseline at all for most sources, including (1) new sources, (2) modifications in the largest-emitting category, coal-fired power plants, (3) modifications at any source where emissions have been highest in recent years, and (4) modifications at any source where emissions have been relatively stable. Together these categories comprise an estimated 90 percent of the emissions benefits from the NSR Program.

In other words, the 10-year lookback baseline would apply to only a small subset of the total universe of sources subject to the NSR program – those facilities where emissions before the facility change are lower as a result of decreased capacity utilization due to decreased market demand, some kind of outage, or other circumstances.

EPA says it is uncertain what exactly the emissions impacts would be from modifications undertaken at this limited subset of sources. However, EPA notes “that any overall consequences would be negligible . . . because the number of sources receiving different baselines likely represents a very small fraction of the overall NSR permit universe, excludes new sources and coal fired power plants, and because the baseline may shift in either direction [to a higher or a lower baseline].” EPA concludes “that the change in baseline . . . will not result in any significant change to the environmental benefits derived from the NSR program.”

The petitioners in the litigation challenging EPA's final NSR reform rules challenged the legality of EPA's 10-year lookback period, arguing that it is impermissible under the Clean Air Act and that it is arbitrary and capricious. The court rejected both claims, concluding that EPA supported its selection of the 10-year lookback period "with detailed and reasoned analysis based on its experience and expertise." Specifically, the court said "the business cycle study supports EPA's conclusion that a 10-year lookback period 'is a fair and representative time frame for encompassing a source's normal business cycle.'" The court noted that "[b]ased on 'their experience over the years in implementing the NSR program,' state Intervenor[s] [including Virginia] agree that a 10-year lookback period is reasonable.

In the preamble, DEQ solicits comment on whether past actual emission baselines could be based on any consecutive 24-month period during the lookback period (as proposed) or, alternatively, should be based on some other value, such as the average of the lookback period. Averaging emissions across the entire lookback period would merely perpetuate NSR capacity confiscation. Using the average emission rate over the lookback period rather than the highest consecutive 24-month period would confiscate from the source the productive capacity equivalent to the difference between the average emission rate during the lookback period and

the emission rate for the highest 24-month period during the lookback period. In instances where the lookback period encompasses a deep business cycle trough, that confiscation would be very significant. The VMA advocates using the highest consecutive 24-month period in the past 10 years to set the past actual emission baselines. We cannot support any of the alternatives posed by DEQ that are more stringent than the federal NSR provisions.

In sum, to eliminate wasteful NSR capacity confiscation, Virginia businesses must be allowed to use any consecutive 24-month period during the past 10 years to determine a source's past actual emissions baselines.

**RESPONSE:** As discussed in the response to comment 1, the 5-year period was selected in order to enable sources to utilize a moderately extended lookback while providing the board assurance that no unusually high or low periods would be selected. Additionally, the regulation allows non-EGUs the use of a different time period in determining baseline actual emissions if a case can be made that the proposed alternative time period is more representative of normal source operation. This provision will provide sources with additional flexibility when appropriate, while providing the oversight necessary to monitor the program and avoid compliance issues. The commenter observes that EPA supported its selection of the 10-year lookback period "with detailed and reasoned analysis based on its experience and expertise"; the board has done likewise.

No change has been made to the proposal as a result of this comment.

27. **SUBJECT:** Baseline periods.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** The federal NSR reform regulations allow sources the option to use different baseline periods (i.e., different 24-month periods within the past 10 years) to determine the past actual emission baselines for different pollutants. The proposed Virginia NSR reform regulations would require sources to use the same baseline period for all pollutants. This is clearly more stringent than the federal rule. This restriction is not only more stringent than the federal NSR reform regulations, it is more stringent than Virginia's current NSR regulations (similar to the old federal NSR regulations). Neither the DEQ nor the board has provided any rationale for making Virginia's rule more stringent than the federal rule or the current Virginia rule.

Virginia businesses need the flexibility to determine the past actual emissions baselines on a pollutant-by-pollutant basis. VMA's member companies use a variety of production materials and fuels depending on product demands and energy prices. The mix of production materials and fuels may vary such that at any one time a facility is using lower emitting production materials (e.g., lower VOC content) and higher emitting fuel (e.g., oil versus natural gas). Later, the facility may switch to higher VOC production materials because of new product demands and to natural gas fuel because of lower energy prices. Which scenario is "normal" past operation? Both are, so that in the future if the facility must produce a product using higher VOC materials and oil rather than natural gas, it is still normal operation of the facility, and the source should be allowed the maximum flexibility to operate under this normal condition. Restricting Virginia sources to one baseline for all normal operating scenarios perpetuates NSR confiscation because the source owner is forced to give up productive capacity at one or more manufacturing units or energy generating units.

Restricting sources to the same past actual emissions baseline is needlessly more stringent than the current federal and Virginia requirements. Neither DEQ nor the board has provided any rationale for making Virginia's rule more stringent. The Department of Planning and Budget (DPB) noted in the preamble to the proposed NSR reform regulations: "The only available assessment of this change on emissions is provided by EPA. EPA's analysis that is based on the more flexible 10 year lookback and less stringent pollutant specific time frame selection finds that the net impact on emissions could be an increase or decrease, but is likely to be insignificant." DPB concluded its analysis of the board's proposed baseline rules by stating:

These more stringent provisions could possibly reduce some potential net benefits to the sources and the environment when compared to the case where the sources were allowed to operate under more flexible time periods as recommended by EPA. Thus, the net benefits from this regulatory action could be maximized if more flexible time frames are incorporated before the final regulations are published.

The VMA thoroughly concurs with DPB's assessment.

**RESPONSE:** As discussed in the response to comment 1, the Commonwealth's overall air quality situation can benefit from a number of changes to the EPA requirements.

DPB's analysis is heavily dependent on the analysis EPA conducted in support of the federal regulatory action, which is discussed in detail in the response to comment 1. Under the circumstances, it is not prudent to rely uncritically on EPA's analysis in the context of assessing Virginia's air quality needs.

No change has been made to the proposal as a result of this comment.

28. **SUBJECT:** Demand growth.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** After careful consideration of numerous comments, EPA decided to exclude post-change emission increases that do not result from the physical or operational change, but rather are due to "independent factors," such as a growth in the demand for the facility's products. The VMA believes it is essential that projected emissions exclude emissions increases resulting from independent factors such as demand growth. Where post-change emission increases come from increased utilization of plant capacity to meet higher product demand, "the increased capacity utilization cannot be said to result from the change and therefore may rightfully be excluded from the projection of the emissions unit's future-actual emissions." The reason is clear -- "the [Clean Air Act] only applies the major NSR requirements to emissions increases that are the result of a physical or operational change." The causation principle in the Clean Air Act makes it illegal to require the inclusion of emission increases resulting from independent factors, such as demand growth, in the calculation of the projected actual emissions following the facility change. Therefore, VMA strongly supports retaining the demand growth exclusion in the proposed Virginia NSR reform regulations.

**RESPONSE:** While the demand growth exclusion contributes to a more accurate representation of source emissions, there also exists some uncertainty with regard to how this information can be quantified. Demand growth increases the complexity of an already complex

program. It also relies on a source's ability to implement and monitor the program without agency oversight. For these reasons, a demand growth exclusion could potentially create significant compliance problems. Therefore, as discussed in the response to comment 10, the demand growth exclusion has been removed from the proposal.

29. **SUBJECT**: Recordkeeping and reporting.

**COMMENTER**: Virginia Manufacturers Association, Dominion

**TEXT**: The VMA believes the records required in the proposed Virginia regulations at 9 VAC 5-80-1785 B (which mirror the corresponding federal regulations) are clearly sufficient to document the source owner's projection of any post-change emission increases, including any emission increases excluded as the result of independent factors (e.g., demand growth).

The federal NSR reform regulations do not make the source's projected actual emissions enforceable, e.g., by incorporating the projections as emission limits in a permit. After considering the public comments, including concerns expressed by some state agencies "that they do not have the resources to adequately administer a program that would require permits to be issued for every physical or operational change at a major stationary source," EPA decided "that such a requirement may place an unmanageable resource burden on reviewing authorities" and "that it is not necessary to make [a source's] future projections enforceable in order to adequately enforce the major NSR requirements." The VMA agrees with EPA's assessment.

The proposed Virginia regulations add an extra reporting obligation at 9 VAC 5-80-1785 E that is not found in the corresponding federal NSR regulations. This reporting burden goes beyond not only what is required by the federal NSR regulations, but also goes beyond what is required by the current Virginia NSR regulations. The VMA believes this added reporting burden is unnecessary and unlikely to accomplish more than making additional work for both Virginia businesses and DEQ. The reason is simple. As EPA notes:

We anticipate a large majority of the projects that are not major modifications may nonetheless be required to undergo a permit action through States' minor NSR permit programs. In such cases, the minor NSR permitting procedures could provide an opportunity to ensure that [the source's] reviewing authority agrees with [the source's] emission projections. Requiring a separate notification would not provide the reviewing authority with any additional information in such circumstances. Accordingly, we believe today's requirements provide reviewing agencies with the ability to obtain all the information necessary to ensure compliance.

It is very likely that Virginia's minor NSR requirements will apply to those projects for which there is a "reasonable possibility" that major NSR might apply. As EPA notes, the source's compliance with Virginia's minor NSR program will provide the DEQ with all the information necessary to enforce the major NSR requirements. Thus, the VMA advocates the deletion of the needless, additional burden of providing the DEQ with advance reports of facility changes with a "reasonable possibility" of triggering major NSR.

The proposed Virginia regulations contain a provision (9 VAC 5-80-1785 E) that if the DEQ believes a project which the source owner claimed did not trigger major NSR actually did trigger major NSR, the DEQ "will proceed as if the owner is in violation of [the major NSR

requirements] and may institute appropriate enforcement action." This clearly states that source owners must ensure any physical or operational changes do not trigger major NSR or face the enforcement consequences.

**RESPONSE:** As discussed in the response to comment 1, it is important that the department have access to data adequate to determine if a source is in compliance.

No change has been made to the proposal as a result of this comment.

30. **SUBJECT:** Malfunctions.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** The VMA favors the approach in the proposed Virginia regulations of including emissions arising from malfunctions in both the past actual emissions baselines and the projected actual emissions following the proposed facility change. This accounting is both consistent (looking backward and forward) and realistic. Under certain circumstances, federal and Virginia regulations allow an "affirmative defense" against enforcement penalties for excess emissions resulting from a malfunction. Virginia regulations (9 VAC 5-20-180 G) go even farther in some circumstances and provide that excess emissions from malfunctions do not constitute a violation. The VMA does not believe these provisions should alter the approach of including emissions occurring during malfunction events in the calculations of the past actual emissions baselines or projected actual emissions following a proposed facility change.

**RESPONSE:** Support for the proposal is appreciated. As discussed in the response to comment 9, malfunction emissions are an integral part of a source's overall emissions profile and cannot be removed for the purpose of determining the baseline.

No change has been made to the proposal as a result of this comment.

31. **SUBJECT:** Netting.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** Federal and Virginia NSR regulations have never required aggregation of separate source changes for the purposes of determining NSR applicability. As EPA has explained:

If the proposed emissions increase at a major source is **by itself** (without considering any decreases) less than "significant", EPA policy does not require consideration of previous contemporaneous small (i.e., less than significant) emissions increases at the source. In other words, the netting equation (the summation of contemporaneous emissions increases and decreases) is not triggered unless there will be a significant emissions increase **from the proposed modification**.

There is no reason for the board to deviate from this longstanding approach to NSR applicability and make Virginia's new NSR regulations needlessly more stringent than the current Virginia rules they will replace.

**RESPONSE:** Support for the proposal is appreciated.

No change has been made to the proposal as a result of this comment.

32. **SUBJECT:** General support for PALs.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** The VMA strongly supports the inclusion of the federal PAL permitting provisions into Virginia's NSR reform regulations. The PAL provisions provide businesses with the opportunity to maximize their flexibility to make facility changes in exchange for capping the facility's emissions through limitations in a minor NSR or operating permit. Emission caps (annual emission limits) would be set near the past actual emission rates for the facility.

VMA strongly supports PAL permitting because of the operational flexibility it provides. Many of our member companies compete in the fast-paced, global marketplace where the ability to rapidly respond to new product and market demands is critical for survival. Our member companies have had critical business opportunities jeopardized and even lost because NSR permitting has delayed their response to new market and production demands. New source review and permitting must be completed before a company begins construction on a particular facility change. Very often, Virginia businesses simply do not have enough lead time to accommodate the lengthy major NSR process without jeopardizing their ability to respond to global market demands.

Because PAL permitting was not generally available under the federal and Virginia NSR rules in the mid-1990s, Merck, a pharmaceutical company with a manufacturing facility in Elkton, Virginia, obtained a site-specific PAL-type permit through EPA's Project XL. Merck must be able to respond rapidly to new and increased production demands from the medical community. The risk of protracted delays in obtaining one or more major NSR permits in order to respond to new or increased product demands was too great. Merck needed a PAL-type permit that would allow the necessary operational flexibility. However, the only path to a PAL-type permit available at that time under the federal and Virginia NSR rules was the circuitous path of the Project XL process. PAL permitting under the NSR reform rules would provide critical operational flexibility to Virginia businesses at a fraction of the effort expended by Merck and DEQ on the Project XL process.

Virginia can provide its businesses the benefits of PAL permitting without any jeopardy to air quality in the Commonwealth. EPA has estimated the environmental impacts of PAL permitting and concluded "that PALs are likely to result in a net environmental benefit." As EPA explains: "These environmental benefits (which represent only a portion of the overall benefits of the PAL approach) arise primarily because of the incentives created when a facility caps its emissions in exchange for future flexibility to make changes without further NSR permit process." The VMA believes that when they are no longer inhibited by the threat of adverse business impacts from major NSR, Virginia businesses will be more likely to pursue projects that further reduce actual emissions.

EPA undertook a detailed analysis of the environmental impacts of PAL permitting in three manufacturing sectors – pharmaceuticals, semiconductors, and automobiles. EPA estimated that PALs will result in at least 3,400 to 17,000 tons per year of VOC reductions nationally. Because our analysis focuses only on these three categories, it is likely an underestimate, as several other source categories will certainly make

use of PALs, though to a lesser degree in some instances. . . . this analysis illustrates that the benefits of PALs are likely to be on the order of magnitude of tens of thousands of tons per year of VOC.

EPA points out that even if this is not the case, PALs are still a “no-lose” proposition for the environment:

Finally, it is important to note that, should sources be unable to reduce their emissions as significantly as we have seen in these early cases, the emissions from the facility would still be capped, assuring no worse emissions than under the current rules. In the extreme case where a facility could not meet its cap, its emissions increases would be subject to NSR, just as they are today. Thus, the worst-case emissions scenario from adoption of the PAL option is no worse than the current rule. However, as noted above, evidence to date shows that the far more likely result is that net benefits will occur.

Merck’s experience in Virginia confirms EPA’s analysis. During the development of PAL-type permit for Merck’s Elkton facility, some expressed doubt that the environmental benefits expected from the project would actually be achieved. These doubts were similar to those expressed during the NSR reform rulemaking concerning the environmental benefits estimated by EPA. Contrary to the skeptics’ predictions, total criteria pollutant emissions from the facility today are about 10% of what they were prior to the issuance of that permit. In addition, VOC emissions have not increased significantly, and are actually today at about 25% of the level prior to issuance of the permit. While Merck’s success may not always be duplicated, PAL permitting under the NSR reform rules will consistently result in significant benefits for Virginia’s environment.

**RESPONSE:** Support for the proposal is appreciated. As discussed in the response to comment 1, we agree that PAL permitting should result in an overall net benefit to the environment.

No change has been made to the proposal as a result of this comment.

33. **SUBJECT:** 5-year lookback for PALs.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** To maximize the benefits of PAL permitting, it must be attractive to Virginia businesses. To make it attractive, the board must adopt regulations allowing PAL limits to be set for each individual pollutant using the highest consecutive 24-month period during the past 10 years for that pollutant -- the same method VMA advocates for setting the source's past actual emissions baselines. For all of the many reasons discussed above with respect to setting past actual emission baselines, PAL permit limits based on a 5-year lookback period will not provide Virginia businesses with sufficient emissions "head room" to operate their facilities during the upturns in their business cycles. This is crucial to the vitality of Virginia's manufacturers. Several of our member companies have already determined that PAL permit limits based on a 5-year lookback would be too restrictive for them. In short, so the full benefits of this worthwhile permitting program will be realized in Virginia, the board must allow the use of the 10-year lookback to set the PAL permit limits.

**RESPONSE:** As discussed in the response to comment 1, a somewhat shortened lookback period will enable sources to enjoy the benefits of PALs while ensuring that Virginia's air quality resources are protected.

No change has been made to the proposal as a result of this comment.

34. **SUBJECT:** PAL renewal

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** The board proposes to adopt the federal approach to renewal of PAL permits. The VMA fully supports this approach. We believe it balances concerns about perpetuating higher than necessary emissions limits for PAL sources with source owners' concerns that productive capacity unused in the recent past would be confiscated by an arbitrary ratcheting downward of the source's PAL permit limits. Virginia businesses must have some certainty that they will be able to react to market upturns. The prospect of having productive capacity confiscated by severely reducing allowable emissions during permit renewal does not promote the certainty Virginia businesses must have.

**RESPONSE:** Support for the proposal is appreciated.

No change has been made to the proposal as a result of this comment.

35. **SUBJECT:** PAL duration.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** Unlike the federal regulations which establish a 10-year duration for PAL permits, the proposed Virginia regulations restrict PAL permits to only five years. Virginia businesses need the certainty of the 10-year permit duration provided in the federal regulations. This feature of the board's proposed regulations makes them unattractive to many Virginia businesses.

**RESPONSE:** As discussed in the response to comment 1, the 5-year lookback provides an increase over the original 2-year lookback while providing additional assurance to the state that emissions will be adequately controlled.

No change has been made to the proposal as a result of this comment.

36. **SUBJECT:** Definition of "federally enforceable."

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** The definition of "federally enforceable" is not the same as the definition in the federal regulations at 40 CFR 52.21(b)(17). Why not?

**RESPONSE:** As discussed in the response to comment 56, the current definition is outdated and inconsistent with other EPA policies and regulations. It has therefore been updated to be more comprehensive.

No change has been made to the proposal as a result of this comment.

37. **SUBJECT:** Definition of "major emissions unit."

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** The definition of "major emissions unit" is not the same as the definition in the federal regulations at 40 CFR 52.21(aa)(2)(iv)(a) and (b). Why not? It appears the 100 ton per year threshold for a "major emissions unit" is stated twice -- once in subsection (i) and again by reference to subdivision a 1 in the definition of "major stationary source" because that provision also sets a 100 ton per year threshold (for 28 specific source categories).

**RESPONSE:** This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.

38. **SUBJECT:** Definition of "major modification."

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** Subdivision c of the definition of "major modification" excludes certain activities from the meaning of the term "physical change or change in the method of operation." One such exclusion is the "use of an alternative fuel or raw material by a stationary source" under what should be three separate, independent sets of circumstances. The proposed regulations improperly link the first and second sets of circumstances with the third set of circumstances using the conjunctive "and" instead of the disjunctive "or." Under federal and current Virginia NSR rules, a source can switch to an alternative fuel or raw material if it was capable of accommodating that alternative fuel or raw material or if the use is approved by permit. There is no additional requirement that the owner demonstrate through a trial burn that emissions resulting from the use of the alternative fuel or raw material would decrease.

We realize the language in subdivision c (5) (c) appears in the State Air Pollution Control Law, but we have never understood why. If a switch to an alternative fuel or raw material would decrease emissions, the switch would not be a modification because of the second (emissions impact) part of the test for a modification. Thus, there is no need to exclude the switch from the meaning of physical or operational change in the first part of the test for a modification. In any event, the proposed regulation improperly makes a demonstration of decreased emissions using a trial burn a necessary condition for the exclusion. There is no basis in the law or past EPA or DEQ practice to support this. VMA believes the disjunctive "or" must be substituted for the conjunctive "and" in subdivision c(5)(b) of this definition.

**RESPONSE:** The substance of the comment is correct; however, because it is a matter of state law, this provision cannot be removed from the regulation. See also the response to comment 58.

No change has been made to the proposal as a result of this comment.

39. **SUBJECT:** Definition of "net emissions increase."

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** Subdivision c of the definition of "net emissions increase" sets the conditions under which an emissions increase or decrease is "creditable" for netting purposes. Subdivision c (i) repeats the timing requirements for emission increases and decreases previously set out in subdivisions b (1) and (2) of this definition. Thus, it would appear the repeat of these timing requirements in subdivision c (i) is unnecessary.

**RESPONSE:** Subdivision (b) provides the criteria for determining if an increase or decrease is **contemporaneous**. Subdivision (c) provides the criteria for determining if an increase or decrease is **creditable**. We agree that the outcome of this language is somewhat redundant, but the criteria are meant to cover two different requirements and thus need to be described separately.

No change has been made to the proposal as a result of this comment.

40. **SUBJECT:** Definition of "potential to emit."

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** The last sentence in the definition of "potential to emit" does not track the corresponding federal definition set out in 40 CFR 52.21(aa)(2)(ii)(b). That federal provision states that for purposes of PALs, "An emissions unit's potential to emit shall be determined using the definition in paragraph (b)(4) of this section [52.21], except that the words or 'enforceable as a practical matter' should be added after 'federally enforceable.'" The proposed Virginia regulation does not mirror this. The last sentence of the proposed definition should be changed to read: ". . . is federally and state enforceable or enforceable as a practical matter."

**RESPONSE:** This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.

41. **SUBJECT:** PAL public participation procedures.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** 9 VAC 5-80-1865 D would require the use of the elaborate and time consuming public participation procedures in 9 VAC 5-80-1775 for PAL permitting. However, PALs can be set for a source using permits issued under the minor NSR and state operating permit programs. (See the definition of "PAL permit.") The public process in 9 VAC 5-80-1775 is unnecessary overkill considering that only actuals PAL permits can be issued. These PAL permits cannot authorize any significant increase in emissions. We see no need for the elaborate and time consuming public process in 5-80-1775 for PAL permits that must always restrict emissions to less than the major NSR significance levels.

**RESPONSE:** We agree that the public process for major NSR permits is not necessarily appropriate for minor NSR permits, state operating permits, or federal operating permits, and have thus revised the proposal in order to more accurately reflect the public participation requirements that vary from one type of permit to another.

42. **SUBJECT:** Changes to permits.

**COMMENTER:** Virginia Manufacturers Association

**TEXT:** 9 VAC 5-80-1925, 1935, 1945, and 1955, which govern changes to permits, would be entirely new in Virginia's major NSR regulations. It appears these regulatory provisions were borrowed from Virginia's Title V regulations. However, in many cases, the regulatory language creates uncertainties or worse problems. The reason for this is that Title V is an operating permit program whereas NSR is a preconstruction permit program. To illustrate our concern, we are not sure how the provisions in 9 VAC 5-80-1945 G are to work. This subsection authorizes a source owner to make changes proposed in the minor permit amendment request immediately after filing the request with the DEQ. This suggests circumstances in which a source owner might make changes at a facility without first obtaining an amendment to the source's major NSR permit. We are having difficulty envisioning such circumstances and are concerned that our members might misconstrue the extent of this and similar provisions in the permit amendment sections of the proposed regulations.

**RESPONSE:** These provisions, which did originate with the Title V program, were first added to Article 9 in response to a need identified in Virginia for specific steps needed for these types of permit actions; the opportunity is now being taken to add these provisions to Article 8. These provisions provide both the regulated community and the department greatly enhanced certainty as to how certain actions must be implemented in the permitting process, and improve permitting efficiency overall. This system has worked well in the nonattainment program (Article 9); it is now time to make the nonattainment rule (Article 8) consistent with this process.

We appreciate the differences of purpose between the Title V and NSR programs, but cannot see any possibility for confusion in 9 VAC 5-80-1945 G (minor permit amendments). Note that when these provisions were originally proposed for Article 9, neither this commenter—nor anyone else—offered comment on that particular provision or with any other aspect of the added permit change provisions; nor to our knowledge have any other specific issues such as the one the commenter mentions arisen.

No change has been made to the proposal as a result of this comment.

43. **SUBJECT:** Definition of “owner.”

**COMMENTER:** U.S. EPA

**TEXT:** Throughout the proposal where the EPA regulations state “owner or operator”, the Commonwealth regulations offer the language “owner” only. Please clarify whether or not DEQ issues permits to “operators” and whether they have the same regulatory obligations as “owner.”

**RESPONSE:** The definition of “owner” in 9 VAC 5-10-20 of 9 VAC 5 Chapter 10 (general definitions) includes operators. Therefore, “operators” have the same regulatory obligations as “owners.”

No change has been made to the proposal as a result of this comment.

44. **SUBJECT:** Use of “shall” and “will.”

**COMMENTER:** U.S. EPA

**TEXT:** There are numerous references in Articles 8 and 9 and one in Article 6 at 9-VAC-5-80-1110 C 1 that change “will” for “shall” and vice versa. We understand that Virginia has its own protocols for writing regulations, however, EPA needs assurances that these words cannot be construed in a manner different from that intended in the federal rule.

**RESPONSE:** § 5.21 of the Virginia Code Commission’s form, style and procedure manual establishes the following rules for use of “shall,” “may” and “must”:

Use “shall” in the imperative sense to express a duty or obligation to act. The term “shall” is generally used in connection with statutory mandates. “May” is permissive and generally expresses a right, privilege or power. When an individual is authorized but not ordered to act, the term “may” is appropriate. If an obligation to act is intended, “shall” is used. Use “may not” when a right, privilege or power is restricted. “Shall not” negates the obligation but not the permission to act; therefore, “may not” is the stronger prohibition. Wherever possible, the words “shall” or “may” are used in place of other terms such as “is authorized to,” “is empowered to,” “is directed to,” “has the duty to,” “must,” and similar phrases. However, if certain action is intended to be a condition before accruing a right or privilege, the word “must” is used instead of “shall” or “may” (e.g., “In order to have your regulations published you must file them by the deadline.”)

In addition, the following guidance governs the regulations of the board:

Whenever a State agency has the choice between the use of the words “will” or “shall” when applicable to its own actions in a regulation, the prudent choice is “will.” “Shall” should be limited to requirements on the regulated community. The word “shall” when applied to the regulating government entity raises the opportunity for additional litigation in the nature of mandamus against the entity to enforce the self-imposed regulatory mandate, and creates potential problems when the entity’s actions may differ somewhat in time or manner from what the regulation “requires.”

Use of these terms in the proposal are consistent with state requirements without affecting the substance of the federal requirements.

No change has been made to the proposal as a result of this comment.

45. **SUBJECT:** Applicability (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** In 9 VAC 5-80-1605 C, the following statement is not technically correct: “...then the requirements of this **article** apply...”. In the federal regulations only certain provisions apply in this instance.

**RESPONSE:** There are several places in the PSD regulations where EPA stipulates that paragraphs (j) through (r) [in one place it is paragraphs (j) through (s)] apply to major stationary sources and major modifications. While we understand that these paragraphs contain the core of the preconstruction review requirements and that the PSD regulations contain some requirements that do not apply to the sources, limiting applicability to those requirements dilutes the enforceability of other provisions such as stack heights, definitions, and possibly the new reform provisions. Also, provisions beyond those in the federal regulations have been added in order to meet state-specific needs, and we need to make sure that these can be enforced.

No change has been made to the proposal as a result of this comment.

46. **SUBJECT:** Applicability (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** In 9 VAC 5-80-1605 D, the addition of the “or modification” doesn’t make sense – how can it apply to a modification of a major modification?

**RESPONSE:** This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.

47. **SUBJECT:** Applicability (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** We recommend that the text in 9 VAC 5-80-2000 C be revised to read: “The provisions of this article apply in (i) nonattainment areas designated in 9 VAC 5-20-204 or 40 CFR part 81, or ...”. This would allow nonattainment NSR to apply during the interim period between designation and the date the NSR SIP is due.

**RESPONSE:** Part 81 cannot be enforced by the state unless adopted by reference into the regulations of the board and updated as EPA makes changes. The process of adopting Part 81 and keeping references to it up to date would take as much time and as many resources that are now expended in maintaining and updating the Virginia list.

No change has been made to the proposal as a result of this comment.

48. **SUBJECT:** Definitions – general.

**COMMENTER:** U.S. EPA

**TEXT:** Although “unless otherwise required by context” in 9 VAC 5-80-1615 A and 9 VAC 5-89-2010 A is not new text, it is ambiguous and may imply director’s discretion.

**RESPONSE:** Use of this expression is required by the Registrar of Regulations. It occurs in all Virginia regulations in order to provide clarity, not ambiguity. It allows for a reasonable interpretation of a term in the context of a specific regulation that may not be identical to the general terms found in 9 VAC 5 Chapter 10 that are intended to apply throughout the regulations. EPA has approved into the SIP many regulations containing this text on numerous occasions.

No change has been made to the proposal as a result of this comment.

49. **SUBJECT:** Definition of “allowable emissions” (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** Recommend changing to “is subject to federally enforceable or federally and state enforceable limits” in first sentence. Some limits will be only federally enforceable, such as new NSPS and MACT standards that have yet to be delegated. Subdivision (a) includes 40 CFR Part 63. Note that HAPs are not regulated NSR pollutants and this reference may be inappropriate unless DEQ intends to use this preconstruction permit program to implement the preconstruction requirements in 40 CFR 63.9.

**RESPONSE:** The current text (“subject to federally and state enforceable limits”) is approved into Virginia’s SIP. Virginia cannot recognize new NSPS and MACT standards until they have been adopted into the Virginia regulations. Additionally, Part 61, which applies to HAPs, is in the federal regulations; it is unclear why EPA includes Part 61 but not Part 63.

No change has been made to the proposal as a result of this comment.

50. **SUBJECT:** Definition of “applicable federal requirement” (Articles 8 and 9).

**COMMENTER:** U.S. EPA

**TEXT:** This term may be unnecessary. Nevertheless, the term as defined is not inclusive because it does not include the acid rain program. EPA recommends changing the text to state: “...includes, but is not limited to the following.”

**RESPONSE:** This term is used throughout the rules in the context of ensuring that sources meet federal requirements beyond those of immediate concern to the NSR program. The recommended additional wording makes the text more accurate, and appropriate changes reflecting the intent of the comment have been made to the proposal.

51. **SUBJECT:** Definition of “best available control technology” (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** The definition includes 40 CFR Part 63 as one of the backstops for determining BACT. However, BACT applies only to “regulated NSR pollutants”, which do not include HAPs, and it is inappropriate to include 40 CFR Part 63 as one of the considerations for BACT.

**RESPONSE:** As discussed in the response to comment 49, the equivalent federal language includes Part 61, which also governs HAPs. Using Parts 61 and 63 as a BACT floor is not the same as regulating HAPs within the rule. There are pollutants that fall into both categories of HAP and criteria.

No change has been made to the proposal as a result of this comment.

52. **SUBJECT:** Definition of “commence” (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** Although the rule text tracks the federal definition, EPA has had implementation issues with DEQ regarding the meaning of this provision. We would like to be clear “necessary preconstruction approvals **or permits**” only refers to those approvals **or permits** required under

the NSR program. It does not mean permits that may be required by other environmental statutes, or other state or local municipal authorities.

**RESPONSE:** Yes, it applies only to NSR permits.

No change has been made to the proposal as a result of this comment.

53. **SUBJECT:** Definition of “emissions cap” (Articles 8 and 9).

**COMMENTER:** U.S. EPA

**TEXT:** EPA would be compelled to disapprove this term. The only cap recognized by EPA at this time is a PAL. Emission limits that cap emissions from a unit or a group of units could be construed to be “mini-PALS” that would allow changes to occur without review so long as the cap is not exceeded. EPA has not authorized this type of flexibility in the NSR program.

**RESPONSE:** This term is necessary in order to define the type of change being made. It is patterned after Title V, and is essential for administering the permit change provisions.

No change has been made to the proposal as a result of this comment.

54. **SUBJECT:** Definition of “enforceable as a practical matter” (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** EPA would not be able to include in the SIP revision the bolded text in subdivision (e) stating “...this article **and other regulations of the board.**” This would effectively be approval of other regulations not under review by EPA.

**RESPONSE:** This definition has been added because EPA uses the term without defining it, and some additional clarity was needed for the Virginia regulation. This term is essential for the state to be able to enforce any state-only provisions and other federal provisions (like NSPSs) that are not in the SIP that may be included in a permit. The main reason that the “enforceable as a practical matter” concept was introduced was to implement a court decision to require EPA to recognize “potential to emit” based on unapproved state regulations.

No change has been made to the proposal as a result of this comment.

55. **SUBJECT:** Definition of “federally enforceable” (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** (i) Delete the term “and citizens” from first paragraph. This makes the term more restrictive than the federal definition. (ii) There is no such thing as a federal operating permit or federal operating permit program in Virginia. (iii) The definition does not include minor NSR permits.

**RESPONSE:** (i) As discussed in the response to comment 56, this definition is patterned after the definition in 40 CFR 63.2. Additionally, Region III has previously stated that

“The term ‘federally enforceable’ refers to EPA’s **and citizens**’ ability to enforce a provision under §§ 113/167 and 304 of the Clean Air Act.” (ii) Virginia’s federal operating permit program was approved by EPA on June 10, 1997 (62 FR 31516).

(iii) The definition does include minor NSR permits; see subdivision e. Virginia’s minor NSR program has been approved into the SIP.

No change has been made to the proposal as a result of this comment.

56. **SUBJECT:** Definition of “federally enforceable” (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** The definition includes the phrase “enforceable by the administrator **and citizens**”. The text in bold is not marked as new language being proposed with this rulemaking action. However, this text is not part of the currently approved SIP regulations. Nevertheless, EPA could not approve “and citizens” as part of the definition of federally enforceable because it is inaccurate and restricts the meaning of the term far beyond what was intended in the Clean Air Act. With respect to the text “or that are enforceable under other statutes administered by the administrator,” EPA believes that it goes beyond the purpose served by the PSD program and is not necessary to be included in the definition. This text is also not part of the current SIP regulation.

**RESPONSE:** The current definition in the PSD regulation is outdated and inconsistent with other EPA policies and regulations. The definition in the Virginia proposal has therefore been updated to be more comprehensive. It is patterned after the definition in 40 CFR 63.2: “Federally enforceable means all limitations and conditions that are enforceable by the Administrator **and citizens** under the Act...”

Additionally, in a letter from Region III to the department (8/23/99), EPA addressed the issue of federal enforceability of Virginia’s permit programs. EPA stated that the major NSR permit programs were federally enforceable. It also stated that “The term ‘federally enforceable’ refers to EPA’s **and citizens**’ ability to enforce a provision under §§ 113/167 and 304 of the Clean Air Act.”

Part 63 is indeed a HAP program. However, the concept of enforceability of SIP permits should be universal across all programs. If a SIP permit is enforceable by citizens under § 112 programs, then it should also be enforceable by citizens under § 110.

No change has been made to the proposal as a result of this comment.

57. **SUBJECT:** Definition of “locality particularly affected” (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** It is not clear how this term is used. Recommend deleting.

**RESPONSE:** The term is established in § 10.1-1307.01 of the Virginia Air Pollution Control Law, and is used in the context of the promulgating regulations, granting variances, and issuing permits. It is used in Article 8 in the context of public participation. The specific term is necessary in this context in order to ensure that such a locality would receive proper notification.

No change has been made to the regulation as a result of this comment.

58. **SUBJECT:** Definition of “major modification” (Articles 8 and 9).

**COMMENTER:** U.S. EPA

**TEXT:** (i) In Article 9: subdivision 5(b) should be “under any permit issued under 40 CFR 52.21 or permit program approved under 40 CFR 51.166.” (ii) Subdivision c (5)(c) 9 (in Article 8) and subdivision 5 (c) (in Article 9): This provision is not what was intended in the exclusion for alternative fuels and makes the it more stringent than the federal definition. It also seems to allow the use of trial burns without any limits on the duration or frequency of such tests.

**RESPONSE:** (i) “This chapter” is used because it conveys to the reader in a user-friendly way the rules approved under 40 CFR 51.166. (ii) According to 40 CFR 51.165(a)(1), states may use definitions that are more stringent. This particular provision is to comply with state law, and cannot be changed.

No change has been made to the proposal as a result of this comment.

59. **SUBJECT:** Definitions of “major new source review permit,” “major new source review program,” “minor new source review permit,” “minor new source review permit program,” “new source review permit,” “new source review program” (Articles 8 and 9).

**COMMENTER:** U.S. EPA

**TEXT:** These definitions reference § 112 of the Clean Air Act. Does this mean that DEQ intends to use this program to implement 40 CFR 63.9?

**RESPONSE:** These are generic definitions designed to encompass the NSR program as a whole. As indicated in the definitions, this includes Articles 8 or 9 of the NSR program. It is Article 7 that implements § 112(g). There is no intention of implementing 40 CFR 63.9 with Articles 8 or 9. In minor NSR, we do implement the HAPs preconstruction review program that has been delegated to the states through this program, as it is the only mechanism available to the state for making preconstruction approvals required under the HAPs program.

No change has been made to the proposal as a result of this comment.

60. **SUBJECT:** Definition of “net emissions increase” (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** Is the last sentence in subdivision (b) intended to implement the special provisions in the Clean Air Act for aggregating de minimis increases for applicability purposes? If so, EPA recommends that this provision be moved to the definition of major modification since it really an applicability requirement, not a netting issue. If this is not intended to implement the special provisions, this would appear to be acceptable.

**RESPONSE:** The special de minimis provisions are contained in 9 VAC 5-80-2130. This section has already been approved into the SIP and is not germane to this regulatory action. EPA has yet to promulgate its regulations on how states are to comply with the 1990 Clean Air Act Amendments. When EPA promulgates those regulations, this issue may be revisited.

No change has been made to the proposal as a result of this comment.

61. **SUBJECT:** Definition of “reasonable further progress” (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** EPA recommends deleting the definition for this term. In any case, we would be reluctant to include it in the SIP because it conflicts with the definition in § 171(1) of the Clean Air Act. Please note especially that reasonable further progress may not always require “substantial reductions in the early years,” e.g., subpart I areas for the 8-hour ozone NAAQS.

**RESPONSE:** There is no readily apparent conflict with § 171(1). This provision is approved into the SIP, and is not germane to major NSR reform. As for the “substantial reductions in the early years,” the definition basically includes but is not limited to, so the perceived conflict with 8-hour is unclear.

No change has been made to the proposal as a result of this comment.

62. **SUBJECT:** Definition of “significant” (Article 9)

**COMMENTER:** U.S. EPA

**TEXT:** The threshold for PM<sub>10</sub> is missing. How is DEQ implementing NSR for PM<sub>2.5</sub>? Does subdivision (b) apply to subpart I ozone nonattainment areas? If not, it would be advisable to add appropriate provisions since NSR currently applies in those areas.

**RESPONSE:** There is no threshold for PM<sub>10</sub> in the Virginia regulations because there is no threshold for PM<sub>10</sub> in the corresponding federal regulations. Virginia has never had any PM<sub>10</sub> nonattainment areas, so this is not an issue. With respect to PM<sub>2.5</sub>, other provisions have been adopted, such as inclusion of the localities on the list of nonattainment areas and the offset requirements, but without the significance level absent any EPA guidance. However, the proposal has been revised to include the threshold in EPA’s recent PM<sub>2.5</sub> proposal in hope that when EPA promulgates the final regulations that there will be no change. Subdivision (b) does apply to subpart I areas—this is why there is a subdivision (a) for serious and severe areas.

63. **SUBJECT:** Definition of “state operating permit program” (Articles 8 and 9).

**COMMENTER:** U.S. EPA

**TEXT:** Recommend adding a subdivision stating that it is also a means of creating state-only requirements. If you read the definition literally, the three subdivisions are all inherently “and,” meaning that all are true at all times, which may not be your intent.

**RESPONSE:** Although the program may be used for other purposes such as state-only requirements, there is no need to add this statement for purposes of inclusion in federal requirements.

No change has been made to the proposal as a result of this comment.

64. **SUBJECT:** Incorporation of multiple permits (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** The interaction between state operating permits, NSR permits and title V in 9 VAC 5-80-1625 E and F is confusing. Does the NSR permit also authorize indefinite operation after the initial startup and shakedown or is the source compelled to get a state operating permit in order to operate after initial startup and shakedown? Regardless of how this question is answered the source will be obligated to apply for or modify its Title V permit. Is the NSR permit required to contain all applicable requirements – not just those related to NSR? Is the intent of 9 VAC 5-80-1625 E to be able to incorporate provisions (and even change those provisions) from previously issued major and minor NSR permits? Otherwise, at its worst, the provision would seem to be saying that multiple units can have different permits, regardless of whether they would be constructed under one project and it is the discretion of the board to combine them into one permit. EPA assumes that state operating permit does not include title V.

**RESPONSE:** As discussed in the responses to comments 70 and 71, the proposal has been revised in order to eliminate the combining of permits, except at the time of initial application and processing.

65. **SUBJECT:** Performance standards (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** 9 VAC 5-80-1665 references 9 VAC 5-50-20 and 30, which establish requirements for all different types of “performance standards,” including NSPS standards and provisions for testing that already exist in the approved SIP. EPA needs assurance that this provision does not allow for “director’s discretion” with respect to standards and testing procedures already established by a federal rule or a federally approved rule that would otherwise require EPA approval in order to change.

**RESPONSE:** As discussed in the response to comment 75, “standards of performance” is a generic term that applies to Chapter 50, which applies to all new and modified stationary sources. This includes Part I (special provisions, including 5-50-30 and 5-50-30), Article 4 (BACT and LAER) and Article 5 (NSPSs). Article 5 is not in the SIP, but Part I and Article 4 are. However, if a permit is issued under Chapter 80, they must comply with the NSPS if we determine that the NSPS is BACT or LAER. In this case, compliance with the NSPS then becomes federally enforceable via its inclusion in the Chapter 80 permit.

No change has been made to the proposal as a result of this comment.

66. **SUBJECT:** Compensating emission reductions (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** Regarding 9 VAC 5-80-1715 B 2: if modeling indicates that the new source or modification (as opposed to an existing source) is **causing** a violation of an ambient standard, the rule must specify that the source may not construct until emission reductions sufficient to eliminate the violation are achieved.

**RESPONSE:** This text is copied from 40 CFR 51.165(b)(2), (3), and (4).

No change has been made to the proposal as a result of this comment.

67. **SUBJECT:** Appendix W to 40 CFR Part 51 (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** In 9 VAC 5-80-1725 A, there is no date associated with the version of Appendix W to 40 CFR Part 51 that would apply. By default, would this mean the version that existed when the rule was finalized (since this provision is not being changed it is confusing what that would mean) or can it be presumed to always be the most recent version in the CFR?

**RESPONSE:** Appendix W to 40 CFR Part 51 is incorporated by reference into the Virginia regulations at 9 VAC 5-20-21 E 1 a (2). Applicability of the provision is not legal unless this action is accomplished; this is reflected in 9 VAC 5-80-1605 K (old L). It is updated frequently as needed to reflect the most recent version. This language is not being revised with this action, and has already been approved into the SIP.

No change has been made to the proposal as a result of this comment.

68. **SUBJECT:** Source information (Article 8).

**COMMENTER:** U.S. EPA

**TEXT:** In 9 VAC 5-80-1745 A, the references to 9 VAC 5-80-1705, 1715, 1735 and 1755 should be deleted because the analogous federal rule applies generally. See 40 CFR 51.166(n) where it uses the "section." It is interesting to note that while the federal regulations require modeling, impact analyses, etc., these are not necessarily required to be submitted to the reviewing authority.

**RESPONSE:** These referenced sections are the required information and have been added to assist users in finding what the required information is.

No change has been made to the proposal as a result of this comment.

69. **SUBJECT:** General need to obtain a permit (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** : The last sentence in 9 VAC 5-80-2020 A uses the phrase "all the applicable requirements of this article." There is a definition of "federal applicable requirements." If the latter term is not used in this rule we recommend removing that definition so that there is no

confusion with the text in 9 VAC 5-80-2020 A, which is obviously very different from federal applicable requirement.

**RESPONSE:** The difference between “all applicable requirements” and “federal applicable requirements” seems obvious. Because a definition for federally applicable requirements is included, a reasonable person should be able to distinguish between federal requirements in general and requirements specific to this article.

No change has been made to the proposal as a result of this comment.

70. **SUBJECT:** Combining permit applications (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** From an implementation and Title V standpoint, there are difficulties with 9 VAC 5-80-2020 D. Please clarify how the following situation would work: In XX year, a facility obtains a NSR permit to construct two new printing presses, press A and press B. After 5 years, the facility wants to modify press A to increase its capacity, resulting in a significant net emissions increase so the facility applies for a new permit for press A. Will the new permit that is issued address only the modification to press A and will the new permit supersede the requirements for press A in the original NSR permit?

**RESPONSE:** Virginia’s NSR program consists of several regulations: two for major NSR, one for minor NSR, and one for major HAPs. It is possible that an individual source could simultaneously need permits for the purposes of PSD, minor NSR, and HAPs. In the interest of efficiency, this provision was created to allow owners to have a single application for these permits, and to allow the agency to issue a single permit. Either scenario mentioned could be accomplished under this provision: we could either issue a new permit, or amend a permit to reflect the modification. However, in order to address the commenter’s concerns, the proposal has been revised to eliminate permit combining, except at the time of initial application and processing.

71. **SUBJECT:** Interaction between NSR and operating permits (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** The interaction between NSR and operating permits in 9 VAC 5-80-2020 E is a reversal of how most states handle these permits. An NSR permit normally covers a “project,” not an entire facility. Furthermore, states usually issue a permit to construct that covers only the period from construction to startup and shakedown. Then the facility is required to apply for a permit to operate, the latter being a permit that regulates the entire facility. The NSR permit conditions are then incorporated into the operating permit. This allows modifications to provisions such as monitoring, testing and recordkeeping to occur within the context of a state operating permit – a much better vehicle since they usually have administrative procedures for modifying the permit – unlike NSR permits. Neither EPA’s or the state’s rules have any provisions for modifying NSR permits.

**RESPONSE:** The Virginia state operating permit does not operate like other state operating permits. The Virginia SOP is a source-specific regulatory mechanism, not an operating permit in the sense that Title V is an operating permit. There are provisions for

modifications (amendments) in all of the permitting rules. However, in order to address the commenter's concerns, the proposal has been revised to eliminate combining of permits.

72. **SUBJECT:** Combining permit applications (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** 9 VAC 5-80-2030 A is confusing. Wouldn't a source be circumventing NSR if they submitted multiple applications for emissions units that are part of the same project?

**RESPONSE:** No problems with this provision have ever been identified. It is designed to encourage efficiency by encouraging sources to submit an all-inclusive application for all affected units.

No change has been made to the proposal as a result of this comment.

73. **SUBJECT:** Application information required (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** Although this is not required, in 9 VAC 5-80-2040 B, EPA recommends that either the application requirements in the rules or, at a minimum, the application forms address the calculations and justifications needed to do the future actual projected emissions and exclusion for demand growth.

**RESPONSE:** When EPA came out with the major NSR reform regulations for PSD, it did not include any such requirement in 40 CFR 51.166(n).

No change has been made to the proposal as a result of this comment.

74. **SUBJECT:** Emission caps (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** EPA has a concern with 9 VAC 5-80-2050 B, specifically the reference to "emission caps". Other than PALs, EPA does not recognize emission caps as being any different than any other limitation. In other words, if there is a "cap" on one or several units, this in no way allows a facility to make pre-authorized changes so long as the cap is not violated. This can only be accomplished through a PAL. EPA will need to have further clarification on Virginia's use of the term "cap" before any provisions regarding caps can be approved as part of the SIP.

**RESPONSE:** This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.

75. **SUBJECT:** Standards of performance (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** In 9 VAC 5-80-2080, use of the term “standards of performance” and references to 5-50-30 are confusing and possibly incorrect. Please clarify whether “standards of performance” refers to EPA’s NSPS standards or whether it is a more generic term that can apply to any emission standard. Are standards different from permit limits in that they must be established by rule? Please note that 5-80-2080 refers to 5-50-30 and 5-50-30 specifically refers to compliance with 5-50-410, which incorporates by reference the federal NSPS standards. It would be inappropriate and inadvisable to include any compliance provisions for NSPS in the SIP, particularly when the State’s regulations under 2080 would allow for the use of alternative tests, or waivers of testing for which EPA has not delegated such authority. Note also that the current SIP contains similar language. If “standards of performance” does include or can include NSPS standards, this section have been mistakenly included in the SIP.

**RESPONSE:** “Standards of performance” is a generic term that applies to Chapter 50, which applies to all new and modified stationary sources. This includes Part I (special provisions, including 5-50-30 and 5-50-30), Article 4 (BACT and LAER) and Article 5 (NSPSs). Article 5 is not in the SIP, but Part I and Article 4 are. However, if a permit is issued under Chapter 80, they must comply with the NSPS if we determine that the NSPS is BACT or LAER. In this case, compliance with the NSPS then becomes federally enforceable via its inclusion in the Chapter 80 permit.

No change has been made to the proposal as a result of this comment.

76. **SUBJECT:** Offsets (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** 9 VAC 5-80-2120 H is not consistent with 40 CFR 51.165(a)(3)((ii)(C)(1). However, EPA has proposed changing the requirements for offsets generated by shut down credits and these changes will be reflected in the phase II ozone implementation rule. In general, the state must require that the emissions be included in the inventory for reasonable further progress and the attainment demonstration, including those sources that were shutdown prior to the base year inventory (e.g., credits generated prior to 2002 for the 8-hour ozone standard).

**RESPONSE:** This provision is indeed consistent with 40 CFR 51.165—the federal rule says “date specified for this purpose in the plan,” which has been provided as indicated in this provision. It is also approved in the SIP. Once EPA issues its Phase II guidance, the regulations may be revised as needed.

No change has been made to the proposal as a result of this comment.

77. **SUBJECT:** Appendix S to 40 CFR 51 (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** Please clarify the scope of 9 VAC 5-80-2120 J. The provision uses the term “article,” implying that this provision applies throughout the NSR rule, not just provisions related to offsets. Is this correct?

**RESPONSE:** This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.

78. **SUBJECT:** PAL renewal (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** 9 VAC 5-80-2144 J 2 includes the phrase “or until the board determines that the revised permit with the renewed PAL will not be issued.” Assuming the source submitted a timely renewal application and the board denies the renewal, what requirements would the source be obligated to comply with after the permit expires? The plain text of the last sentence would appear to preclude continuing the effective date of the PAL until a new permit is issued. What procedures would the source have to follow (including timeliness) for submitting a second application (since the renewal application was denied)?

**RESPONSE:** See 9 VAC 5-80-2144 I, which covers PALs that are not renewed. A reference to 9 VAC 5-80-2144 I has been added to 9 VAC 5-80-2144 J 2, which should clarify the situation.

79. **SUBJECT:** Recordkeeping (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** The recordkeeping requirement in 9 VAC 5-80-2144 N 1 goes beyond the federal requirements and needs to be included in any demonstration that these proposed rules are equivalent to the federal rules for PALs.

**RESPONSE:** This provision is identical to that in 40 CFR 51.165(f)(13)(i).

No change has been made to the proposal as a result of this comment.

80. **SUBJECT:** Repeal of 9 VAC 5-80-2160 (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** The proposed rules have repealed 9 VAC 5-80-2160 but this section remains in the SIP. The SIP revision needs to include a request to rescind this portion of the approved SIP.

**RESPONSE:** This section is still in the SIP because EPA has yet to process Revision D00, which was submitted December 16, 2003.

No change has been made to the proposal as a result of this comment.

81. **SUBJECT:** Changes to permits (Article 9).

**COMMENTER:** U.S. EPA

**TEXT:** 9 VAC 5-80-2200 through 2240 are new revisions relative to the SIP. These sections establish procedures for making revisions to the “permit.” However, these provisions

are not consistent with either the Clean Air Act or EPA's implementing regulations for NSR. Conceptually, a permit to construct is required whenever a new source is constructed or an existing source is modified. The permit to construct must contain all requirements necessary to ensure that air quality is protected for that particular project, i.e., for that new source or modification. If a source is added, or an existing unit is modified again, it needs a new NSR permit to construct. However, it appears that these sections are intended to have the NSR permit be a de facto operating permit. If a facility wants to make a physical change or a change in the method of operation does it apply for a modification of an existing NSR permit or does it apply for a new NSR permit? If a PSD permit can be modified to account for a "change", what changes, outside of NSR related changes, are anticipated by these sections? It is important to point out that with the addition of these provisions, Virginia now has six different permit programs: Title V (Articles 1, 2, 3 and 4), State Operating Permits (Article 5), Permits for New and Modified Stationary Sources (Article 6), Permits for New and Reconstruction Major Sources of HAPs (Article 7), Permits for Major Stationary Sources and Modifications – PSD Areas (Article 8), and Permits for Major Stationary Sources and Modifications – Nonattainment Areas. Each of these has its own administrative procedures for permit modifications, permit consolidation, etc. How does a facility really know if it needs to modify an existing permit in order to make a change, and if so, which one. Or does a facility have to apply for a new permit for the modification plus all of the other existing activities at a source? Since these questions are not readily answered by the plain text of the regulations, EPA will need a lot of clarification as to (1) what types of changes require a new permit versus a modification of an existing permit; (2) what safeguards are in place to assure that facilities know when they need to perform an NSR applicability determination and when a permit application for a new project is required.

**RESPONSE:** Provisions have been added that would ensure that permit change provisions are not used to address situations that would require a new permit.

82. **SUBJECT:** Clarifications/correction of typographical errors.

**COMMENTER:** U.S. EPA

**TEXT:** Article 9: Definition of "actual emissions" should read "through c" and not "d." Definition of "regulated NSR pollutant" refers to "1 and 2" but should read "a and b." 9 VAC 5-80-2020 B and C appear to be redundant.

**RESPONSE:** These comments are acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.